

Jobs and the Environment

*– Moving British Columbia into the
21st Century –*

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By:
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JOBS AND THE ENVIRONMENT

Moving British Columbia into the Twenty-First Century

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1. INTRODUCTION

1.1 *British Columbia on the Threshold to Tomorrow*

Employment in BC's resource sectors has peaked and declined from the levels achieved in the 1970s and 80s. For example, forest sector employment reached its maximum in the late 1970s, and had declined approximately 10% by 1994.¹ Since then, forestry, mining, fishing, and oil and gas sectors have collectively experienced a 13% decline in employment over the four years from 1995 to 1998.² Job loss in these primary resource sector jobs has hit some communities hard, fueling a broad perception that the BC economy is faltering and potentially heading into a crisis. If we take the view that the future health of the BC economy rests largely on the strength of our primary resource industries, then the future does appear bleak. Our forestry, fishery, and mining sectors are caught in a trend of diminishing resources, falling commodity prices and relentless competition in an increasingly global market place.

However, there is another possible future awaiting British Columbians. One that does not require us to sacrifice the quality of life and environment we have come to enjoy. One that would allow us to build on our natural comparative advantages to create a diverse and vibrant 'new' economy for the next millennium. In fact, this new economy is already emerging. In BC, there is surging growth in 'high technology',³ tourism, the film industry, environmental industries, and other advanced services sectors (See Table 1). These growth sectors are part of the 'knowledge-based' economy of the future. The fundamental building blocks of this economy are information, ideas, and knowledge. To thrive, these industries must draw on the intellectual capital of British Columbians, rather than the natural resource wealth of British Columbia, which has been the foundation of the BC economy in the past.

¹ Ministry of Forests. 1994. *Forest, Range and Recreation Resource Analysis*. Victoria, BC.

² BC Statistics. *Employment by Industry for BC, Development Regions, and Metro Areas*. Ministry of Finance and Corporate Relations, at <http://www.bcstats.gov.bc.ca>.

³ There is no commonly accepted definition of what constitutes a high-technology industry, although the sector is considered to include computer and related services, engineering and other scientific services, aircraft and aircraft parts, pharmaceuticals, and electronics.

This is not to say that the traditional resource sectors – forestry, mining and fishing – won't play a role in the future of the BC economy. Clearly they will continue to support an important job base. However, it is unlikely that these industries will be the lead generators of new jobs in the decades ahead. This is especially so if these sectors continue to pursue traditional economic strategies focused on high rate production of commodity products. A declining resource base and comparatively high wages are rapidly eroding BC's traditional comparative advantage in the globally competitive extractive resource sectors. New strategies are therefore needed to distinguish BC natural resource products in the international market place, based on value and niche marketing. Indeed, if BC's natural resources industries are to have a real future, the value-added, customer-focused approach to business – which is now emerging – needs to be emphasized and expanded.

Table 1: Comparison of Employment Trends in BC's Goods and Service Sectors, 1997-1999

Sector	1999 Annual Average Employment (Thousands)	Percentage Change in Annual Average Employment (1997-1999)
<i>Total Goods Producing Sector</i>	397	(5.0)
Agriculture	29	(12.1)
Forestry, Fishing, Mining, Oil and Gas	49	(9.3)
Utilities	12	20.0
Construction	115	(6.5)
Manufacturing	192	(2.5)
<i>Total Service Producing Sector</i>	1510	4.1
Trade	309	2.3
Transportation and Warehousing	118	8.3
Finance, Insurance, Real Estate	120	(5.5)
Professional, Scientific and Technical Services	137	21.2
Management, Administrative	64	3.2
Educational	128	4.9
Health, Social Assistance	195	2.6
Information, Culture, Recreation	92	3.4
Accommodation, Food Services	153	5.5
Other Services	105	12.9
Public Administration	90	(10.0)

Source: BC Stats

Quite simply, the volume-based, commodity-oriented strategies of a few dominant resource industries can no longer provide the foundation of the BC economy the way they have in the past. Increasingly, the BC 'economic landscape' will be populated by a diversity of dynamic smaller enterprises in a wide range of sectors, focusing on niche market and value-added strategies, competing in an increasingly global marketplace. Economic prosperity will increasingly depend on the calibre of British Columbia's human resources and less on the abundance of our natural resources. As Lester Thurow notes, "Natural resource endowments have fallen out of the competitive equation ... today knowledge and skills now stand alone as the

only source of comparative advantage. They have become the key ingredient in the late twentieth century's location of economic activity."⁴ Our natural environment will play an increasingly important role, not as sources of extractive material, but as the foundation for attracting knowledge workers seeking quality of life.

The strategic challenge that awaits BC policy makers therefore is to advance the new economy in British Columbia in ways that protect and build on our outstanding natural heritage, human capital, and quality of life. A large part of this challenge will be to mitigate the impacts of the transition to the new economy on workers in resource dependent towns and communities, which in recent years have begun to lag behind. The experience of other jurisdictions such as Oregon, which have faced similar challenges, suggests that the future for our province can be brighter than we might have thought. BC has the natural competitive advantage to excel in the new economy, if we engage our collective will to embrace it.

This report explores the nature of the new economy and what it can mean for BC's future. It presents policy options and recommendations that can allow the provincial government to play an active and constructive leadership role in aiding the transition to the new economy that will sustain both jobs and the environment well into the 21st Century.

Ric Careless, Executive Director

BC Spaces for Nature

1.2 Study Scope and Objectives

This study on **Jobs and the Environment: Moving British Columbia into the Twenty-First Century** was commissioned by the BC Ministry of Environment, Lands and Parks. It was intended to examine the interplay of current economic and environmental trends and what they might mean to British Columbia's future. A strategic assessment undertaken by BC Spaces for Nature, the specific objectives of the study were to:

- Provide a brief review of the literature on integration of environment and economy;

⁴ Thurow, L. 1996. *The Future of Capitalism: How Today's Economic Forces Shape Tomorrow's World*. William Morrow and Company. New York, New York. p. 68.

- Provide an analysis of economic trends in British Columbia and the U.S. Pacific Northwest, and highlight the efforts of U.S. Pacific Northwest jurisdictions to plan for economic transition and environmental protection;
- Identify alternative scenarios for the future of BC's environment and economy;
- Provide an analysis of the findings in terms of the tangible steps that the province can take immediately and in the medium term to help foster movement to the presented scenarios, including mitigation of negative transitional impacts on jobs and communities.

This report is based on research conducted by BC Spaces for Nature over the past two years. It also builds on a summary publication, the *Jobs and the Environment Action Plan*, and an intensive speaking tour BC Spaces undertook throughout rural BC in 1998.⁵ Over an eight-month period, BC Spaces delivered 60 public presentations in 33 communities, talking to municipal councils, Chambers of Commerce, conservation groups, and college and high school students.

⁵ BC Spaces for Nature. 1998. *Jobs and Environment Action Plan*.

2. OUR WORLD IN TRANSITION

2.1 *Environment under Siege*

Our earth is facing unprecedented threats as we approach the end of the twentieth century. Scientists worldwide agree that unless humanity takes decisive action to arrest environmental degradation and protect biological diversity, ecosystems may be irreversibly damaged, many species forced into extinction, and human health and survival threatened.⁶ In British Columbia, there are numerous challenges to our natural environment that stem from historic patterns of resource exploitation, our consumptive lifestyles, and rapid population growth. Consider that:⁷

- BC's population is expected to increase 50 percent in the next 17 years (by 2016) with much of this growth occurring in the Lower Mainland, southeast Vancouver Island and the Gulf Islands. This will place enormous strains on the ecosystems and carrying capacities of these regions. (For example, up to 70 percent of the wetlands of the Fraser Valley has already been lost and many productive salmon-bearing streams have been degraded or destroyed.)
- Despite making more progress than many other jurisdictions in its efforts to protect the environment, nevertheless over 700 species of plants and animals are listed as threatened or endangered in BC.
- Approximately 50 percent of British Columbia's old-growth forests have been logged; historically, logging has been concentrated in lower elevation, more productive forests, reducing habitat available for many old growth forest-dependent species.
- British Columbians are energy intensive in their lifestyle, using about 20 percent more energy per person than the average Canadian, and 300 percent more than the average Japanese.

⁶ Union of Concerned Scientists. 1993. *World Scientists' Warning Briefing Book*. Cambridge, Massachusetts.

⁷ Ministry of Environment, Lands and Parks. 1993. *State of the Environment Report for British Columbia*. Victoria, BC.

- While urban air quality in BC has shown improvements for some gases, other emissions remain a problem, particularly with increasing vehicle traffic and congestion in Lower Mainland urban areas.
- One quarter of BC's salmon stocks are in decline, with declines largely attributable to overharvesting and habitat damage. Some stocks are critically threatened.

In short, many environmental problems are persistent and systemic, stemming from issues that are difficult to deal with, such as population growth, people's high expectations for material wealth and consumption, and our traditional economic dependence on resource extraction and processing.

2.2 The Changing Nature of Work

The driving force of economic transformation in much of the developed world is the dramatic growth in jobs and economic activity in services and the commensurate decline in importance of primary processing and manufacturing jobs in the economy. Throughout the industrialized world, employment in goods production has entered a long-term decline that is diminishing the ranks of manufacturing workers in the economy. Increasingly, Canadians too are becoming engaged in the business of producing, packaging and distributing information, services, knowledge and expertise, (whether in high technology, finance, health care, media, entertainment, travel, tourism or education). Consider that:

- The service sector now employs 80 percent of Canadians. The production of goods now requires only 20 percent of Canada's workforce.⁸
- Three out of every four (76.2%) jobs in British Columbia in 1996 were in the service sector.⁹
- The service sector has been providing the impetus for much of BC's economic growth in recent years. In BC, services account for

⁸ Goldberg, M. September 1998. *The British Columbia Economy into the Millennium: Perspectives and Possibilities*. A Discussion Paper prepared for the Business Council of British Columbia. Faculty of Commerce and Business Administration, University of British Columbia. p. 2.

⁹ Ministry of Finance and Corporate Relations. *Long-term Trends in BC's Economy. Business Indicators*, January 1998 at <http://www.bcstats.gov.bc.ca>

a larger share of total Gross Domestic Product (GDP) than in most other provinces (the exceptions being Nova Scotia and Newfoundland) at just under three quarters (73.5%) of total GDP in 1996.¹⁰

- In BC, over 400,000 direct jobs have been created in the service sector from 1977 to 1996, with explosive growth occurring in some sectors, such as high technology and the film industry. For example, BC's film industry employed 25,000 people in 1996, an increase of 41 percent over the previous year.¹¹
- Simultaneously, between 1970 and 1992, there has been a steady decline in BC's manufacturing sector employment and wages relative to services. For example, between 1980 and 1992, real wages in mining declined by about 5 percent, whereas, from 1970 to 1992, real wages in service industries rose by about 6 percent.

What this means, is that as global manufacturing corporations retool and streamline their processes, many 'blue collar' jobs have been reduced or eliminated. Partly in response to higher wages, resource industries have become increasingly capitalized, leading to higher labour productivity, but fewer jobs. Increasingly, labour-intensive manufacturing facilities are concentrated in lesser-developed countries, where wages, benefits and other costs are lower, displacing well-paying blue-collar jobs that used to be located in Canada and other developed countries. This undermines the ability of low and semi-skilled workers to command the wages in the way they once did as a result of global competition and labour cost pressures. In effect, the 'middle' of the labour pool has eroded as workers with advanced professional, technical and managerial skills have seen their job opportunities and wages increase, while workers with minimal skills have seen their wages drop or their jobs disappear altogether. These shifts in employment and wages are not new and will likely continue, and probably accelerate, in the future.¹² As Thurow notes, "the hallmark of the industrial revolution has been the slow replacement of the unskilled by the

¹⁰ Ibid.

¹¹ BC Film Commission. 1997.

¹² Thurow, L. 1996. *The Future of Capitalism: How Today's Economic Forces Shape Tomorrow's World*. William Morrow and Company. New York, New York.

skilled...the unskilled in the first world are on their way to becoming marginalized."¹³

Such trends reveal a sea change in the nature of work and economic activity as our society moves beyond the industrial revolution and into the information age. Nor is this trend restricted to just BC or North America. It is occurring throughout the developed countries of the world. What is afoot is a basic change in the way the economy creates value. Information, knowledge, creativity, and interpersonal skills are increasingly the fundamental building blocks of the economy. Today economic value is increasingly being derived from human capital, in contrast to the past when physical resources such as land, minerals, and energy were of prime concern. In effect:

"There is less 'stuff' in the stuff we buy today. Wood products, for instance used to mean plywood and dimensional lumber [but today] less of the total value of the product comes from wood and more of the value comes from engineering. And that engineering can happen almost anywhere. In short, less of the value of our goods comes from the raw materials and more comes from intellectual activity. This shifts regional economies away from natural resource bases toward human resource bases. As our old ways of explaining regional economic activity have become outdated, economists will have to focus on where people want to live, broken down by types of people and types of places. For economic activity will increasingly follow people, rather than vice versa."¹⁴

Computers are an excellent example of the nature of the new economy. Whereas the manufacturing and assembly of computers is relatively low paid work and represents a small component of the overall computer value, it is software design that represents the greater source of value embodied in a computer. And the source of most of the high paying jobs. As Goldberg

¹³ Ibid, p. 77.

¹⁴ Conerly, W. 1995. "The Death of Regional Economics." *Pacific Northwest Economic Indicators*. 4(3), June/July. p9.

notes, "the manufactured 'good' begins to look more and more like the bundling of services."¹⁵

This broad transformation of the global economy from goods to services has profound implications for how people organize themselves and conduct business. Goods-producing enterprises depend on economies of scale, hierarchical management structures, and division of labour to build value from a foundation of land, energy, and minerals. Financial capital is the principal economic constraint to goods-oriented growth. Not surprisingly, the central metaphor for the goods-producing economy has been machines – like cars and clocks – with the emphasis placed on optimum design and engineered consistency.

By contrast, service-producing enterprises build value through an effective synthesis of information, knowledge, and ideas. In other words, brainpower. Management structures in this new economy are more fluid and self-organizing and based on synergies between talented people. In the new economy, creativity is the principal economic constraint to growth, rather than capital. The central metaphor for the new economy may well be organisms and ecosystems: many successful businesses are now emerging that are small, dynamic and self-organizing enterprises, ideally suited for a business environment based on continuous adaptation and improvement.¹⁶

2.2.1 The Service Economy: Not burger flipping

One of the most common misconceptions of the new economy is that the service sector jobs being created are low-paying, low-skills jobs compared with the blue-collar jobs being lost. The reality is in fact quite the opposite. Consider that:¹⁷

- Almost 45 percent of goods-oriented manufacturing jobs in the U.S. are low paying compared with 5 percent in the service sector. High-wage service industries provide almost six times as many jobs as lower wage service industries in the U.S.

¹⁵ Goldberg, M. September 1998. *The British Columbia Economy into the Millennium: Perspectives and Possibilities*. A Discussion Paper prepared for the Business Council of British Columbia. Faculty of Commerce and Business Administration, University of British Columbia. p. 65.

¹⁶ Petzinger, T. 1999. *The New Pioneers: The Men and Women Who Are Transforming the Workplace and Marketplace*. Simon and Shuster, New York, New York.

¹⁷ Power, T. 1996. *Lost Landscapes and Failed Economies: the Search for a Value of Place*. Island Press, Washington, DC. p. 74.

- From 1980 to 1992, low wage hotel and restaurant establishments represented only about 12 percent of total employment gain in the U.S., a figure that is overwhelmed by growth in other components of the service sector.
- Less than 25 percent of goods-oriented manufacturing jobs in the U.S. are upper-level professional and technical jobs. By contrast, almost two-thirds of service sector jobs are upper level. In fact, many service sector jobs require a high level of technical and managerial sophistication.

The low-paying, 'burger-flipping' job that has become a symbol of service sector work is largely a misconception. While average wages in the BC service sector may have lagged behind those of goods sector by about 28% (average weekly earnings in the service sector in 1996 were \$564, compared with \$782 in the goods sector); many new jobs are in advanced services (such as in high technology, finance, managerial and business services, health care, and education) and pay higher wages. For example, wages in the high technology sector exceed the average BC wage by approximately 37 percent.¹⁸

Indeed, labour productivity trends suggest that the historic wage differential in BC, where the goods sector 'outpaid' the service sector, cannot be sustained. Since 1984, labour productivity in the service sector has been increasing, while the productivity of workers in the goods sector has been declining. The decline in productivity in the goods sector since 1984 appears to be concentrated especially in the logging and manufacturing industries.¹⁹ The net effect is that growth in service sector productivity has been more or less offsetting declines in productivity in the goods sector, as BC moves increasingly to service-based economy.

2.3 Reconciling Environment and Economy

Since the time of the industrial revolution, the global economy has grown exponentially based on a linear, consumptive model of economic progress. Traditional economic activity involves the extraction of raw materials from the natural environment and their processing into products. It involves

¹⁸ British Columbia High Technology Industries Association. *Technology Industries in BC. A 1997 Report Card*. Vancouver, BC.

¹⁹ Ministry of Finance and Corporate Relations. *Long-term Trends in BC's Economy*. Business Indicators, January 1998 at <http://www.bcstats.gov.bc.ca>

consuming significant amounts of energy (almost all from non-renewable sources) and the production of substantial waste by-products, many of which are persistently toxic to the environment. While this activity has historically contributed to a very high standard of living in many parts of the world, including BC, the distribution of economic benefits has been inequitable, and the environmental consequences have been devastating. As Paul Hawken notes: "Civilization has arrived at an extraordinary threshold: all living systems upon which life depend are in decline, and the rate of decline is accelerating as material prosperity increases."²⁰

As the twentieth century draws to a close, leaders from all segments of society – including the business world – are realizing that our future prosperity, if not our very survival, will depend on new ways of thinking and new economic models that integrate environment and economy. Since the early 1960s, companies have attempted to integrate environmental management into business practice, with varying degrees of success.

Frankel describes three phases of corporate environmentalism to date as the eras of:

1. 'Compliance',
2. 'Beyond compliance', and
3. 'Eco-efficiency'.²¹

These are described below.

2.3.1 Compliance

From the early 1960s to 1980s, governments adopted many new environmental laws and regulations, largely in response to growing evidence of the harmful effects of pollutants released into the environment as a result of industrial processes. (This was triggered in large part by the landmark publication of *Silent Spring* by Rachel Carson, which explained the link between chemical effluent and the decline in wildlife populations.) During this period of expanding environmental legislation and regulations, good corporate citizenship largely consisted of obeying increasingly rigorous environmental laws and regulations.

²⁰ Cited in Frankel, C. 1998. in *Earth's Company: Business, Environment and the Challenge of Sustainability*. New Society Publishers, Gabriola Island, BC. p. xiii.

²¹ Frankel, C. 1998. in *Earth's Company: Business, Environment and the Challenge of Sustainability*. New Society Publishers, Gabriola Island, BC.

2.3.2 Beyond Compliance

Subject to growing public scrutiny from the early 1980s - and largely in response to global environmental disasters such as the Three Mile Island and Chernobyl nuclear incidents, the Bhopal chemical spill, and the Exxon Valdez oil spill - corporations began to move beyond compliance towards voluntary environmental control measures. As a result, today many large and medium-sized firms have environmental management systems (EMS) in place to address control and reduction of harmful emissions over and above that which is required by law.

2.3.3 Eco-efficiency

The cutting edge of environmental management today is focused on 'eco-efficiency': the process of streamlining the whole range of corporate processes, from energy retro-fits to the use of recycled materials, to 'de-materialization' (e.g. reduce the amount of materials used, for example, in making packaging thinner and lighter).

The Natural Step

A prominent example of the eco-efficiency approach is 'The Natural Step' developed in 1988 by Swedish cancer researcher and physician, Karl-Henrik Robert, which attempts to define the basic conditions for sustainability for businesses. Based on extensive consultation and consensus agreement among the Swedish scientific community, Robert identified four basic principles, or 'system conditions' that can be used to guide institutions and individuals towards sustainability. So pragmatic did these four principles prove to be that today over two dozen leading Swedish companies, including IKEA and Electrolux, now use them to map their environmental and strategic directions. The four principles or systems conditions are as follows:

- *System Condition 1: Substances from the Earth's crust must not systematically increase in nature (i.e. Fossil fuel consumption needs to be greatly reduced, and alternative energy sources, mostly wind and solar, must be widely adopted).*
- *System Condition 2: Substances produced by society must not systematically increase in nature (i.e. Non-degradable*

materials, such as plastics and toxic chemicals must not be produced at a faster rate than they can be broken down in nature).

- System Condition 3: *The physical basis for the productivity and diversity of nature must not be systematically deteriorated.* (i.e. the use of renewable resources - fish, forests, soil, water - must not exceed the rate at which these resources are replenished.)
- System Condition 4: *There must be just and efficient use of energy and other resources.* (i.e. Basic human needs should be met with the most resource-efficient methods.)

Factor Four System

Along the same lines as The Natural Step, a German think tank, the Wuppertal Institute for Climate, Energy and Environment, has proposed a concept called 'Factor Four'. Essentially Factor Four proposes that businesses should aspire to be four times more efficient in their use of resources using currently available technologies. The central message from Factor Four proponents, such as Amory Lovins of the Rocky Mountain Institute, is that new technologies are not needed so much as new ways of thinking. An example is new automobile technology using ultralight materials, aerodynamic designs and hybrid electric drive systems that deliver four times the fuel efficiency of conventional automobiles.²²

Bruntland Commission: A Global Vision for Jobs and the Environment

A milestone in moving human society towards reconciling environment and the economy occurred with the publishing of the United Nations Report on the Economy and the Environment in 1987.²³ The Bruntland Commission, which authored it, recommended sweeping changes in the nature of economies and the distribution of wealth in society to address growing poverty and "environmental trends that threaten to radically alter the planet, [and] that threaten the lives of many species dependent upon it,

²² Frankel, C. 1998. *In Earth's Company. Business, Environment and the Challenge of Sustainability*. New Society Press, Gabriola Island, BC. p. 183.

²³ The World Commission on Environment and Development. 1987. *Our Common Future*. The World Commission on Environment and Development. Oxford University Press, Oxford, UK.

including the human species."²⁴ The Commission called for a dramatic increase in resource efficiencies in production processes to reduce the amount of raw material used and the amount of waste that must be re-assimilated into the environment. The Commission also called for greater ecosystem protection and recommended that "the total expanse of protected areas needs to be at least tripled [to a minimum of 12%] if it is to constitute a representative example of Earth's ecosystems."²⁵

Therefore if the vision of sustainable development conceived by the Bruntland Commission is to ever be realized, economic systems must be transformed from the linear industrial model of economic progress that dominates the world today, to a circular, organic model in which energy and materials are conserved and re-used. This will involve a radical change in individual and societal values, away from growth and progress defined largely in material terms and towards a society based on conserving natural resources and the more equitable sharing of wealth. As ecological economist, Herman Daly, notes, "this change in vision involves replacing the economic norm of *quantitative* expansion (growth) with that of *qualitative* improvement (development) as the path of future progress."²⁶

²⁴ Ibid., p. 2.

²⁵ Ibid., p. 166.

²⁶ Daly, Herman. 1998. *Beyond Growth: The Economics of Sustainable Development*. Beacon Press, Boston, MA. p. 1.

2.3.4 Higher Environmental Standards Linked to Economic Well-being

Despite such advances in economic/environmental thinking, many opinion leaders continue to look backward at the economy through the rearview mirror, rather than forward through the windshield to the new world that is approaching. Hence, the common misconception persists among many policy makers that they must choose between jobs and the environment, although the evidence suggests that in most cases this is simply untrue and unnecessary. In fact, the evidence increasingly is that high levels of environmental management are often associated with high levels of economic prosperity and well being. Several studies have examined the 'jobs versus environment' mindset and shown it to be inaccurate and out of date. Consider the following:

- U.S. studies show that economic growth rates are highest for those states with the strongest environmental protection. By contrast, high levels of permissible toxic waste are associated with higher unemployment, greater poverty, and lower disposable income.²⁷
- Stringent standards and regulations for product performance and environmental impact can create and upgrade competitive advantage by pressuring firms to improve product and process quality.²⁸
- The data (from American states) show that at a minimum the pursuit of environmental quality does not hinder economic growth and development. Furthermore, there appears to be a moderate yet consistent positive association between environmentalism and economic growth.²⁹
- At the broadest level, researchers have observed that while environmental enhancement programs can entail significant start-up and short-term costs, a positive correlation can be identified between environmental commitment and economic development among the most advanced societies. This correlation is most

²⁷ Power, T. 1996. *Lost Landscapes and Failed Economies: the Search for a Value of Place*. Island Press, Washington, DC. p. 22.

²⁸ Porter, M. 1991. *Canada at the Crossroads: The Reality of a New Competitive Environment*.

²⁹ Meyer, S. 1992. *Environmentalism and Economic Prosperity: Testing the Environmental Impact Hypothesis*.

clearly delineated among the more progressive west European nations, Canada and the U.S.³⁰

- At the level of the economy, there simply is no trade-off between employment and environmental protection. In fact, the great majority of economy-wide studies show a small positive effect of environmental regulation on overall employment.³¹

Of course, there are local and sectoral job impacts that result from higher levels of environmental management and these must be mitigated wherever possible. However, the key point is that these impacts are typically over-stated, and can be offset by job creation in other sectors in the economy. Indeed, the experience increasingly is that high levels of environmental management will be especially important in the new economy, where quality of life factors weigh heavily in the decision of where knowledge workers and knowledge-based industries choose to locate.

³⁰ Hutton, T. 1995. *Economic Implications of Environmental Enhancement: A Review and Interpretation of the Contemporary Literature*.

³¹ Goodstein, E. 1994. *Jobs and the Environment: The Myth of a National Trade-off*.

3. LESSONS FROM THE U.S. PACIFIC NORTHWEST

The economic situation facing many British Columbia communities today is similar in many respects to those which communities in the U.S. Pacific Northwest faced in the late 1980s. Like BC, ten years ago Washington, Idaho and Oregon still featured rural economies that had long been based largely on forestry. By the late eighties, these economies were in major decline as the old-growth forests of the U.S. Pacific Northwest were depleted. Communities there were experiencing a steady attrition of resource extraction jobs and the prospects of further declines seemed likely. In rural areas of the U. S. Pacific Northwest then, it was not uncommon for more than half of all jobs and income to be directly or indirectly tied to timber, the region's only major commodity export. As a result, warnings of massive economic disruption accompanied the dramatic reductions in federal timber harvests that occurred to protect endangered species, halt the deterioration of fisheries, and cope with private and public forest overcutting in the late 1980s—early 1990s. At that time, a decade ago, some industry spokespeople claimed that 100,000 jobs would be lost in the Pacific Northwest and that economic calamity would follow. Timber towns were forecast to soon become ghost towns.

3.1 *From Timber Crisis to New Economy Boom*

In fact, the economic disaster predicted for the U.S. Pacific Northwest never happened. Rather, that region of the United States has experienced an economic resurgence, **with economic growth rates for the states of Idaho, Montana, Oregon and Washington that are two to three times the national average.** By 1996, unemployment rates were at their lowest levels in 25 years for Oregon, western Montana, northern Idaho, and northern Washington. Even so-called depressed timber towns were enjoying growing populations and mini-building booms. Indeed, one study found that while timber harvests were reduced 86 percent on federal lands from their peak in 1988 to 1996, and employment in the lumber and wood products industries fell 22 percent, **total employment increased by a remarkable 27 percent.**³²

³² Niemi, E., E. Whitelaw, and A. Johnston. 1999. *The Sky did Not Fall: The Pacific Northwest's Response to Logging Reductions*. ECONorthwest, Eugene, Oregon.

A study of the region's small towns that lost lumber mills found that most of them had gained population rather than lost it. It turned out that displaced forest workers were quickly absorbed into the expanding economy at wages not far below what they previously earned. Indeed, real earnings rose as new, relatively high-paying jobs proliferated.³³ Tens of thousands of jobs were being added annually. And a review of all 50 states of the U.S. placed Montana, Oregon and Idaho on its five-state economic 'honour role' for economic performance and development policy.

Something unforeseen was happening in the economy. What was it? In metropolitan areas, it was apparent that much of the growth was due to expansion of the high technology sector. Yet the answer was less clear for rural areas, where almost all of the region's non-metropolitan counties also shared in the economic expansion. The economic changes underway in the U.S. Pacific Northwest were transforming the regional economy from an historic dependence on natural resource extraction and processing to a more diversified, advance service economy. Reflecting on this, a 1995 study endorsed by over 65 U.S. Pacific Northwest economists concluded that:

"The economy of the Pacific Northwest is undergoing profound transition. During the last decade the industries once central to the region's economy - aerospace and natural resource industries - agriculture, timber, fishing, and mining - have experienced significant declines and have eliminated tens of thousands of jobs. In previous times, these contractions would have devastated the regional economy. But not now. As the region's traditional economic heavyweights have weakened, others have stepped forward, notably high-tech design and manufacturing industries as well as a wide range of medical, business, and professional services. In addition, parts of our historical base have diversified into additional value-added manufacturing. **The net result is that the region is successfully navigating from being**

³³ Power, T. 1996. *Environmental Protection and Local Economic Well-being. The Economic Pursuit of Quality*. M.E. Sharpe.

dependent on a few extractive industries to having a modern, widely diversified economy.'³⁴

How has this been accomplished? The economists attribute the remarkable changes to two factors that are also at work today in British Columbia:

1. The increasing mobility of people and businesses; and,
2. The region's high quality of life.

As a result, the region is outperforming the rest of the U.S. in terms of jobs and income for one primary reason – the Pacific Northwest is a great place to live, work and raise a family compared with many other parts of the U.S. As this region receives ever more in-migrating knowledge workers seeking better quality of life, these workers bring with them skills that allow them to establish, or attract, knowledge-based businesses and investments. These new economy businesses are creating the jobs and economic activity that is reinvigorating the local and regional economies.

The Pacific Northwest economists also identified the important role of environmental resources as contributors to quality of life that underpins the economic recovery of the region, saying that:

"As quality of life becomes more important to the region's economy and natural resource extraction becomes less important, a shift is taking in the economic role that natural resources play. Our natural landscapes no longer generate new jobs and incomes primarily by being warehouses from which loggers, farmers, fishermen, and miners extract commercial products. In today's world, these landscapes often may generate more new jobs and income by providing the natural-resource amenities - water and air quality, recreational opportunities, scenic beauty, and the fish and wildlife - that makes the Pacific Northwest an attractive place to live, work and do business. ***In short, the Pacific Northwest does not have to choose between jobs and the environment.***

³⁴ Power, T.M.(editor). 1995. *Economic Well-being and Environmental Protection in the Pacific Northwest. A Consensus Report by Pacific Northwest Economists.* University of Montana. p.i.

Quite the opposite: A healthy environment is a major stimulus for a healthy economy".³⁵

3.2 The Makeover of Dubois, Wyoming

As a case in point, the changes that have occurred in the rural community of Dubois, Wyoming are a microcosm of the changes sweeping across the U.S. Pacific Northwest and the North American economy generally. A timber-dependent community, the situation that Dubois faced in the late 1980s has parallels to that which many BC communities are encountering today.

Until 1987, Dubois had one of the largest 2x4 mills in the U.S., providing one-third of the town's jobs and a similar share of its tax base. In order to assure an adequate flow of logs from adjacent National Forests, the U.S. Forest Service began to allow logging in wilderness areas, wildlife habitat, and prime recreation land. The ensuing conflict split Dubois from its neighbouring communities of Pinedale and Jackson, whose economies were more clearly based on recreation. In 1987, the Forest Service decided that it could no longer provide the flow of logs required to sustain the mill and thus it shut down, precipitating dire predictions that Dubois would soon be a ghost town.

To the surprise of many, since then Dubois has survived and prospered. In the years following the mill closure, real income in Dubois grew by 8 percent per year at a time when the Wyoming state economy was stagnant and the national economy grew at less than one-third of that rate. A long-time Dubois resident and retired economics professor, John Murdock, conducted a house-by-house survey of the entire town at the height of the timber harvest debate. He found that the local economy was already much more diversified than most people realized. Moreover, the Dubois area had already begun to attract residents and businesses because of its recreation, wildlife, and scenic beauty. These so-called environmental amenities were the source of the new wealth in Dubois.

After the mill closed, the community continued to evolve along a path towards increased economic diversification, with a significant increase in tourism activity and employment. Today, the Dubois economy is a healthy

³⁵ Power, T.M.(editor). 1995. *Economic Well-being and Environmental Protection in the Pacific Northwest. A Consensus Report by Pacific Northwest Economists*. University of Montana. p.iii.

mix of ranchers, hunting and fishing guides, wilderness outfitters, tourism-oriented businesses, and entrepreneurs who have relocated to the area because of its scenery and recreational lands. A National Bighorn Sheep Interpretive Center was opened in the town, drawing an estimated 120,000 visitors to the town annually, and completing the successful transition of the former lumber town to a diverse, tourism-based economy that the mayor declared was "steadier and stronger than ever." What Dubois residents discovered is that the essential mobility of knowledge-based workers in the new economy opens up much broader possibilities for community economic development, especially for those communities with attractive natural and social amenities.

3.3 Oregon Shines

In the mid-1980s, the state of Oregon was in the midst of a severe recession with widespread job loss in the predominantly timber-dependent state economy due to declining timber harvest levels, log exports, and productivity improvements. Over a 10-year period, 13,000 forestry jobs had been permanently lost and an equal number were expected to be lost over the coming decade. Facing an economic crisis, the state government embarked on a strategic planning exercise to develop a focused vision and action plan to turn the state economy around. Called *Oregon Shines*, this strategic planning effort has resulted in a remarkable diversification and reinvigoration of Oregon's economy. *Oregon Shines* is a strategic planning template that the BC government should consider as a means to engage civic and business leaders in re-shaping the BC economy for the 21st century.³⁶

Oregon Shines was launched in June 1988 with the formation of committees composed of business, labour, education, and government leaders. They were asked to review the competitiveness of Oregon as a place to do business and to identify actions related to both the overall climate of the state and those directly tied to the specific industry which would improve Oregon's competitiveness. One group was formed to represent a cross-section of the state's major or rapidly growing industries. The second group was formed to examine policy issues that effect economic performance across all industries. *Oregon Shines* identified three

³⁶ Information on *Oregon Shines*, including copies of the strategic planning documents are available at the Oregon Progress Board website at <http://www.econ.state.or.us/opb/orsh.html>

key strategic initiatives for the state of Oregon to pursue on a priority basis:³⁷

- *A Superior Workforce.* Invest in Oregonians to build a workforce that is measurably the most competent in America by the year 2000, and equal to any in the world by the year 2010.
- *An Attractive Quality of Life.* Maintain Oregon's natural environment and uncongested quality of life to attract the people and firms that will drive an advanced economy.
- *An International Frame of Mind.* Create an international orientation in Oregon's business and cultural life that distinguishes Oregonians as unusually adept in global commerce.

In support of these initiatives, the Oregon government concentrated in three key areas:

Forming institutional partnerships to accelerate the transfer of ideas and improve working relationships among sectors;

- Investing in public facilities and services which directly affect business operations and costs (e.g. roads, ports, utilities) and in services which enhance quality of life (e.g. schools, police and fire protection and parks); and,
- Containing the costs of business (e.g. reducing taxes, insurance, and energy rates).

As the Governor of Oregon noted:

"These initiatives will distinguish Oregonians as a people who are unusually capable of working in an advanced economy and Oregon as a place where the environment and quality of life is preserved and enhanced as the state grows. These initiatives should position us well in building a stronger, more diversified economy."³⁸

³⁷ Goldschmidt, N. 1989. *Oregon Shines: An Economic Strategy for the Pacific Century*. Oregon Economic Development Department.

³⁸ *Ibid.*, p. 2.

3.3.1 Building on Strength

The strategic approach adopted by Oregon leaders was to build on their natural strengths: a proximity to the Pacific Rim, natural endowment, and especially, a skilled workforce and high quality of life. As the Governor noted, "Oregon's widely recognized high quality of life ... is a factor that to an increasing extent distinguishes Oregon from [our competitors]. This advantage will grow more important to firms dependent on skilled and choosy workers as those areas become more congested."³⁹

In conducting economic research for *Oregon Shines*, the authors reported on a phenomenon that is key to the integration of environment and economy:

"Economists have found evidence that rather than jobs attracting people to an area, an area can attract people who bring jobs with them or who create jobs. In such cases, we can create employment opportunities by providing environmental attractions and other amenities that assure that people will want to live here. People demand higher wages in regions without access to such amenities. Conversely, Oregon residents seem to accept this region's environmental and cultural amenities as an addition to their real incomes – a supplementary compensation in the form of attractive neighbourhoods, affordable housing, good schools, uncongested roads, pristine vistas, and accessible outdoor recreation."⁴⁰

3.3.2 Overcoming Weaknesses

In addition to moving forward from its strengths, Oregon also systematically undertook actions that would overcome its economic weaknesses; specifically, high business costs (e.g. for energy and employee insurance); and under-investment in public infrastructure – particularly higher-education, which is the foundation of a skilled workforce.⁴¹ Notably, Oregon chose not to subsidize a few key industries as part of this initiative, recognizing instead that in new economy, economic expansion and diversification is dispersed among many, smaller enterprises rather than a

³⁹ Ibid., p. 3.

⁴⁰ Ibid., p.8.

⁴¹ Oregon's tax levels were considered to be relatively competitive in relation to other states so this was not a key issue addressed in *Oregon Shines*.

few 'flagship' industries (nine out of ten Oregon businesses have less than 20 workers).

"Oregon's basic strategy here should be to concentrate on policies that can result in lowering or containing overall business costs, rather than measures that help some businesses at the expense of others. Because Oregon's overall economic growth will come from the expansion of thousands of relatively small firms, we need to focus on initiatives that improve the ability of all Oregon's businesses to compete."⁴²

3.3.3 Reporting on Progress: the Oregon Benchmarks

To tracking the implementation of the *Oregon Shines* Strategic Plan, the State of Oregon has established a results-oriented approach. In 1989, the Oregon Legislative Assembly established a Progress Board with a mandate to report to the Legislature every two years on progress towards achieving the goals set out in *Oregon Shines*. To track Oregon's progress, the Board adopted 92 measures of success called the Oregon Benchmarks.⁴³ These Benchmarks are divided into seven categories:

- Economy,
- Education,
- Civic Engagement,
- Social Support,
- Public Safety,
- Community Development, and
- Environment.

Performance targets for each benchmark were established in consultation with citizens, policy makers, and experts. An overall letter grade – like a school report card – is assigned biennially for each benchmark category.

Economy benchmarks include, for example: net job growth; professional services exported/imported; Oregon's national rank in new companies and

⁴² Goldschmidt, N. 1989. *Summary. Oregon Shines: An Economic Strategy for the Pacific Century*. Oregon Economic Development Department. p. 8.

⁴³ Oregon Progress Board. March 1999. *Achieving the Oregon Shines Vision: The 1999 Benchmark Performance Report*. Report to the Legislative Assembly. This report can be downloaded from the Oregon Progress Board website at <http://www.econ.state.or.us/opb>

business closings; Oregon's rank among seven western states in business taxes as a percentage of gross state product; and, per capita personal income relative to the US per capita income. Environment benchmarks include, for example: urban highway congestion; air quality; forest, agriculture, and wetlands preservation; and wild salmon/steelhead recovery.

3.3.4 Oregon Today

Since *Oregon Shines* was adopted in 1989, Oregon's economy has become more diversified, unemployment has reached historic lows and incomes have risen. The State made significant progress in reducing the cost of doing business and stronger institutional partnerships between the private sector, government, and education institutions is a reality. In 1996, the Oregon State government summarized their progress to date:

"Oregon's economy has moved from one dominated by forest products to one more oriented towards high technology and services. Fast population growth and a change in the goods derived from Oregon's abundant natural resources have accomplished this structural shift. Many people who value the quality of life afforded by clean air and water, outdoor activities and open spaces are moving to Oregon. Sustaining the environment and managing the impacts of a quickly growing population have become an integral part of Oregon's economic future."⁴⁴

As Mayor Bill Morrisette of Springfield, Oregon observed after attracting a new Sony compact disc factory that will provide 1,500 well paying jobs for his community in rural Willamette River valley, "It wasn't blind dumb luck that helped us land Sony. What we have here is quality of life and as long as we don't screw that up, we'll always be able to attract people and businesses."⁴⁵

⁴⁴ Oregon Progress Board. January 1997. *Oregon Shines II: Updating Oregon's Strategic Plan*. A Report to the People of Oregon from the Oregon Progress Board and the Governor's Oregon Shines Task Force.

⁴⁵ "Oregon Thrives as it Protects Spotted Owls". *The New York Times*. October 11, 1994, p. A1.

3.3.5 Some Lessons Learned

Oregon has not experienced the progress it had hoped for in some areas however, and there are lessons to be learned for BC policy makers. Oregon is creating thousands of good jobs but too few Oregonians are qualifying for the better ones. Oregon remains a net importer of high-end professional services and Oregon's turnaround has been geographically uneven, with most growth concentrated in metropolitan areas. In some areas of the state, quality of life is showing signs of deterioration resulting from population growth and environmental limits.

What this says for British Columbia, is that the new economy demands a steady supply of highly skilled workers, and the infrastructure must be in place to create and retain these workers or the economy will stall. It also suggests that concerted efforts must be made to integrate rural communities into the new economy. Also, quality of life cannot be taken for granted. Unless measures are taken to protect the environment, a steady erosion in competitive advantage and ability to attract 'footloose' workers will occur.

In 1987, Oregon updated its strategic plan: *Oregon Shines II* has re-focused Oregon's strategic priorities in four areas:

1. Promote a value-adding, diversified, export-driven economy;
2. Increase public and private sector investment in education, infrastructure, and social support;
3. Establish strong community-based partnerships focused on achieving outcomes;
4. Establish a new vision for the natural resource based sectors of the economy, with an emphasis on advanced, value-added processing and niche marketing.

After more than 10 years experience with the State's strategic planning exercise, Oregonians have come to appreciate two things that show the link between environment and economy. The Oregon Business Council's *Values and Beliefs Survey* conducted as part of the *Oregon Shines II* process found that "by far the highest value associated with living in

Oregon was its natural beauty and recreation opportunities."⁴⁶ Oregonians worry about the loss of open space, the negative effects of growth and restoring salmon runs as more people are drawn to live there. At the same time, Oregonians care about jobs and realize that "in a global economy, a worker has two things to offer – skills or the willingness to work for low wages."⁴⁷ Oregonians are not interested in trying to compete with other Pacific Rim nations on the basis of low wages.

These Jobs and Environment experiences gained by Oregon and its Pacific Northwest neighbours are of importance to our province. British Columbia faces similar challenges as these states once did. Therefore, like them we must purposefully re-direct our economy in a way that will build on our strengths and retain what we care deeply about – our quality of life and outstanding natural heritage. At the same time, British Columbians must prepare themselves to participate in the new economy in which skills, creativity, and human capacities, more than ever will provide the foundation for success.

⁴⁶ Oregon Progress Board. January 1997. *Oregon Shines II: Updating Oregon's Strategic Plan*. A Report to the People of Oregon from the Oregon Progress Board and the Governor's Oregon Shines Task Force. Executive Summary. p. 7.

⁴⁷ *Ibid.*, p.3.

4. ELEMENTS OF THE NEW ECONOMY

4.1. *The Economy of Landscapes*

During the 1980s, when most non-metropolitan North American communities suffered an economic recession, the economies of many rural western U.S. communities with environmentally attractive landscapes experienced ongoing growth, a phenomena that noted U.S. economist Thomas Power concluded was "testimony to the powerful draw of desirable living environments."⁴⁸

What Power's research showed is that one of the realities of the new economy is that people increasingly consider quality of life factors in their career choice and business location decisions. Consequently, this is leading directly to the revitalization of many rural communities. Studies by a range of researchers show that major shifts in U.S. population over the past 50 years have often been in pursuit of social and environmental amenities.⁴⁹ For example, during the 1990s, recreation and retirement communities in the U.S. grew at twice the non-metropolitan average and a third faster than metropolitan areas. In effect, talented, in-demand workers as well as independently wealthy retirees have been choosing desirable locations to live, with the associated benefit that economic activity follows them. This trend has been widely observed in the U.S. and is becoming evermore common in Canada. As McMahon and Propst note:

"Increasingly, Americans are saying that the place that they live is as important as what they do for a living – so much so that they're willing to relocate to a 'better' community even at the risk of diminished job opportunity or a lower income. Technological advances like the fax machine, computer modem, overnight courier services and electronic mail have accelerated this trend."⁵⁰

⁴⁸ Ibid. p. 14.

⁴⁹ Power, T. 1996. *Lost Landscapes and Failed Economies: the Search for a Value of Place*. Island Press, Washington, DC. p. 43

⁵⁰ Howe, J. E. McMahon and L. Propst. 1997. *Balancing Nature and Commerce in Gateway Communities*. Island Press, Washington, DC. p. 10.

Especially in today's world, overall labour supply is a powerful force in determining the geographic distribution of economic activity. In the new economy, cycles of economic expansion continue as long as the area remains a relatively attractive place to live, work and do business. Over time, an area with a surplus of skilled labour is likely to attract economic activity, either through local entrepreneurs putting people to work or due to outside firms coming in. Whereas in the old economy, the location of natural resources determined where industry established itself, in the new economy, the location of skilled workers is a prime consideration for where industry will site itself. In effect, quality of life is a fundamental aspect of attracting 'new economy' workers.

What this means is that planners can no longer use per capita income or wages alone as the sole measure of prosperity. Prosperity measures must be adjusted to also include the local cost of living and the value of goods and services residents receive from the environment. Factors contributing to overall economic well-being include: climate, recreational opportunities, proximity to parks and wilderness, low crime, low congestion, clean air and water, good schools and cultural amenities. Increasingly, environmental and social amenities are becoming the primary forces that will determine the economic health of many communities in the 21st century. Clean air and water, safe neighbourhoods, scenic views, parks and outdoor recreation opportunities; these are what draw people to communities when they have a choice about where they can live. It is from this foundation of environmental and social assets that many communities will build their future economic prosperity.

It is noteworthy that demand for undisturbed natural landscapes is rising at the same time as the supply is shrinking. The implication is that those communities that retain and promote their attractive natural settings and environmental amenities will have a competitive advantage in attracting 'footloose' workers to their communities. In the new economy, quality environments and healthy communities will result in quality jobs. **No longer is it a conflict of Jobs versus the Environment. Rather, it is Jobs and the Environment.**

The mobility of knowledge-based workers and their pursuit of quality of life truly creates the link between environmental quality and economic growth in the new economy. Since commercial, extractive use of the natural landscape is declining in importance in the western U.S., while non-commercial, non-consumptive values are rising in importance,

environmental quality has become a core asset and central determinant of local economic vitality. Therefore, **efforts to protect the landscape and enhance the social environment have to be looked at as integral to any economic development strategy.** As Power so concisely notes:

"Oversupply is the reason that agriculture, fuel, metal and fibre prices are low and the reasons these industries are in relative decline. By contrast, clean air, safe water, endangered wildlife, intact ecosystems and scenic beauty are in dangerously short supply. Remnant natural landscapes are scarce, relatively unique, irreplaceable assets. In many cases, if we opt for extractive activity to keep the local economy afloat, we will be sacrificing what is scarce and unique for what is common and cheap."⁵¹

4.1.1 The Value of Wilderness and Protected Areas

Parks and wilderness areas are a crucial part of the new economy as they provide both direct benefits – in terms of jobs and related economic activity – and because they convey a powerful competitive advantage for communities vying to attract new 'footloose' workers and businesses.

A 1995 Coopers and Lybrand study commissioned by the BC Government showed that the economic activity generated by BC's park system sustains about 9,300 direct and indirect jobs in BC and contributes \$430 million to the provincial government.⁵² These jobs and economic benefits are widely distributed across British Columbia's communities and regions, with about 75 percent of these benefits realized outside the Vancouver and Victoria regions.⁵³

Parks and wilderness areas are also vitally important to the tourism industry in BC. Between 1985 and 1995, visitation to BC parks increased 56% with over 26 million visitors to provincial parks in 1998 alone.⁵⁴ The tourism spin-offs from this visitation are substantial. For example, it has been estimated that for every dollar spent on parks, British Columbians see a return of

⁵¹ Power, T. 1996. *Lost Landscapes and Failed Economies: the Search for a Value of Place*. Island Press, Washington, DC. p. 237 and 254.

⁵² Coopers and Lybrand. 1995. *Economic Benefits of BC Parks*. A Report for the BC Ministry of Environment, Lands and Parks.

⁵³ BC's Park Legacy Panel. 1999. *Sustaining Our Protected Areas System*. p.2.

⁵⁴ BC's Park Legacy Panel. 1999. *Sustaining Our Protected Areas System*. p. 43.

about \$9 in visitor expenditures.⁵⁵ In particular, many adventure and ecotourism operators – BC's fastest growing tourism sector - are located adjacent to, and take advantage of, BC's remarkable diverse and high calibre wilderness and protected areas.

Parks and wilderness areas are also highly valued by British Columbians and contribute substantially to our high quality of life. It is estimated that almost 90 percent of British Columbians have used a protected area at least once, and that 60 percent do so each year.⁵⁶ Not surprisingly, a 1989/90 Ministry of Forests survey showed that each adult British Columbian is prepared to pay, on average, \$85, or a total of \$172 million per year, to preserve wilderness values and ensure outdoor recreation opportunities.⁵⁷

4.2 Demographics and Retirement

First world demographics are changing, with an aging population with zero or low natural population growth rates occurring in most developed countries. As a result, immigration will be the main source of population growth for most developed countries. More importantly, given the aging of the baby boom generation, a significant portion of the population in North America will be moving into their retirement years over the next 10 to 20 years. This has implications for health care, social services, tourism, financial services, and other sectors of the economy. For example, over the next decade, there will be a 50 percent increase in the number of Americans in the 45-54 age bracket, a group with a significant amount of disposable income and leisure time; a similar trend is occurring in Canada.⁵⁸ In BC, the population of seniors (65 and older) increased 65% from 1981 to 1996, more than any other age group.⁵⁹ In an era when people are retiring earlier, often at 55, this has major economic significance.

⁵⁵ Coopers and Lybrand. 1995. *Economic Benefits of BC Parks*. A Report for the BC Ministry of Environment, Lands and Parks.

⁵⁶ BC's Park Legacy Panel. 1999. *Sustaining Our Protected Areas System*. p. 2.

⁵⁷ BC Ministry of Forests, Recreation Branch. 1991. *Outdoor Recreation Survey 1989/90*.

⁵⁸ Howe, J., E. McMahon and L. Propst. 1997. *Balancing Nature and Commerce in Gateway Communities*. Island Press, Washington, DC. p. 3.

⁵⁹ Ministry of Finance and Corporate Relations. *Long-term Trends in the BC Economy*. Business Indicators, January 1998 at <http://www.bcstats.gov.bc.ca>

As the population ages, seniors make an increasingly important contribution to rural economies. For example, when retirees relocate to a new community, they bring with them a lifetime of accumulated savings and investments. In the United States, over a third of all dollars received by Americans comes in the form of non-employment income, which includes revenue from investments and pensions. In some regions, retirement income can now make up as much as 30 to 60 percent of the local economy. Such non-employment income is growing in importance even as both manufacturing and extractive activities are declining as sources of income.⁶⁰ Moreover, baby boomers' stand to benefit from an enormous inheritance – estimated to be \$10.4 trillion in stock market gains and real estate assets in the U.S. – with the expectation that they will double the demand for recreational homes and resort lodging in attractive rural communities.⁶¹

Since their income is not derived from employment, many retirees chose to relocate either closer to family, or to places that offer quality of life and affordable living. Retirees are drawn to communities that offer quality of life in terms of the natural and social environment. Mild weather, pleasant scenery, clean air, good water, and outdoor recreation opportunities are important. Also key are safe neighborhoods, good public facilities – especially health care, but also libraries, and community centres – as well as cultural and recreational opportunities. Lower housing costs are also a significant factor in relocations.

According to demographic researchers such as David K. Foot (author of *Boom, Bust and Echo*), a desire to relocate in smaller communities will be a key trend among “baby boomers”.⁶² Given the population bulge of this generation as it approaches the retirement years, this relocation of retirees from urban to attractive rural areas will intensify in the future. The migration of retirees to communities that offer a high quality of life in terms of environmental and social amenities is already evident in BC. For example, retirees constitute more than 30% of the population in a number of BC communities, including Qualicum Beach, Osoyoos, Sidney, White Rock and West Vancouver. In the interior of the province, communities such as

⁶⁰ Power, T. 1996. *Lost Landscapes and Failed Economies: the search for a value of place*. Island Press, Washington, DC. p. 39.

⁶¹ Howe, J., E. McMahon and L. Propst. 1997. *Balancing Nature and Commerce in Gateway Communities*. Island Press, Washington, DC. p. 3

⁶² Foot, D., D. Stoffman. 1997. *Boom, Bust and Echo*. Macfarlane, Walter and Ross, Toronto, Ontario.

Vernon, Salmon Arm, Creston, Nelson and Invermere are already attracting strong numbers of retirees.

Studies undertaken for the Yellowstone Region in the United States show that the primary reason that over 40 percent of new residents chose to move to this comparatively remote area is for the lifestyle provided by a healthy environment and natural beauty. By contrast, less than 35 percent of those relocating chose their new home primarily for a job. These telecommuters, affluent retirees, and urban migrants are looking for a quality rural environment and have been responsible for more than 96 percent of the new jobs in that region and 89 percent of the growth in labour income over the past 20 years.⁶³ Interestingly, 91 percent of those relocating to rural areas find their lives more enjoyable, and 89 percent felt happier and healthier since their move from the city.⁶⁴

Kimberley, a community of 7,000 in southeastern BC, is a long-time mining town that has witnessed a dramatic decline in mining jobs as the main employer, Cominco, reduced its operations. Despite a reduction in mine employment by two-thirds over the past 40 years, the population has remained stable. Mayor Jim Ogilvie commented that the usual winding down of the community in lock-step with its primary employer has not happened in Kimberley, a fact that he attributes to the attractive setting in the Rocky Mountains, adjacent to numerous parks. Agnes Koch, a sociologist at the College of the Rockies in nearby Cranbrook, concluded that the community is bound together by its lifestyle, a peaceful rural setting, and abundant outdoor recreation opportunities. These amenities attract visitors and new residents, thus improving the economic diversity and viability of the community. Surveys support such conclusions. For example, 54 percent of residents from Kimberley reported that "small town life" is the best aspect of living there, and for 21 percent, it is the recreation opportunities.⁶⁵

Research regarding retirees in the U.S. Pacific Northwest indicates that when an individual retiree moves to a community that person brings considerable assets, such as pension funds and other financial wealth with them. Retirees' income is also qualitatively different than other kinds of

⁶³ Rasker, Ray. March 1994. "Footloose Entrepreneurs: Pioneers of the New West". *Illahee: Journal for the Northwest Environment*. Institute for Environmental Studies, University of Washington, Seattle, Washington.

⁶⁴ Ibid.

⁶⁵ *Vancouver Sun*. "A town that wouldn't die." October 18, 1997.

employment income. Statistical analysis shows that non-employment income has as great or greater impact on local economic activity as income from basic industries.⁶⁶ Not only do retired people spend more on local services than on imported goods, but they do not fill the jobs that their expenditures create and they put less pressure on local services, such as schools. Consequently, the effect of a retiree moving to a new community is to create spin-off jobs. In general, **each employment-aged in-migrant to an area has a direct effect on local employment equal to at least one new job.** Since increasingly, 'retirement' is occurring at a younger age – often 55 or even younger – many 'retirees' still wish to be active and hence establish new businesses in their adopted communities. Given the coming wave of baby boomer retirees, the economic impact of the 'retirement sector' on some rural communities will be profound. Hence, the retiree sector should be strategically targeted by communities and government as a key economic growth opportunity.

4.3 Knowledge-based Industries

The high technology sector is already an important source of new jobs in BC and is rapidly expanding (see Table 2). Since 1992, BC's high technology sector has grown twice as fast as the provincial economy. In 1995, more than 41,000 people were employed in the high technology sector, representing more than 5,000 firms, with over \$5 billion in sales revenue. In the two years from 1995 to 1997, employment had grown to 47,000 workers. Industry leaders predict that **BC has the potential to add 10,000 high-tech jobs per year and could surpass the forest industry in terms of employment within 5 years.**⁶⁷ The majority of BC high technology jobs are in three sectors: engineering services (35%), computer and related services (23%), and scientific and technical services (16%).⁶⁸

⁶⁶ Power, T. 1996. *Lost Landscapes and Failed Economies: the search for a value of place*. Island Press, Washington, DC. p. 39

⁶⁷ *Vancouver Sun*. June 13, 1997. From an interview with D. Bernsted, Chair, BC Technology Industries Association.

⁶⁸ Goldberg, M. September 1998. *The British Columbia Economy into the Millennium: Perspectives and Possibilities*. A Discussion Paper prepared for the Business Council of British Columbia. Faculty of Commerce and Business Administration, University of British Columbia. p. 11.

Table 2: BC's high-tech Sector, 1998

Number of Technology Companies	6,843
Total Technology Employment	46,100
Technology Employment Growth	5.2%
Overall BC Employment Growth	0.9%
Total Revenue (1997)	\$5.2 billion
Revenue Growth (1997)	12%
Average Technology Employee Compensation	\$43,500/year

Source: BCTIA. 1999. *BC Technology Report Card '99*

Stanford University professor, Dr. William Miller, who has studied economic communities around the world, highlighted the potential that exists in BC to accelerate the development of an advanced, high technology sector. He noted that quality of life is an important factor in attracting high-tech workers "who can live practically anywhere." He described the ideal 'habitat' for high technology firms as one in which:

- There is a collaboration between business, government and the industrial sector;
- There are leading edge research institutions and universities that provide a pool of talented people to draw upon;
- Firms actively establish business networks that support cross fertilization of ideas and innovation; and,
- There is a well-established business and professional services sector, including accountants, lawyers and entrepreneurs, and connections to venture capital.

Miller concluded: "You've got most of these things here in BC. You really have a great opportunity."⁶⁹

As Dr. Miller notes, studies examining regional economic development and knowledge-based industries reveal one very important message: knowledge-based workers in the new economy place a great deal of emphasis on quality of life and will often move to communities offering

⁶⁹ Hadley, T. March 1999. "Vancouver rated ideal high-tech location". *Sounding Board*. Vancouver Board of Trade.

exceptional social and environmental amenities.⁷⁰ There are numerous examples of this trend:

- A May 1997 study by business services firm KPMG of 1,200 high-tech workers across North America reported that **quality of life in the community ranked higher than compensation as a factor that would attract them to a high-tech job.**
- Of the 48 individuals who have received the Entrepreneurs of the Year award in BC by the accounting firm Ernst and Young, none reported that they came here because they believed they could make more money. Twenty-seven were born or raised here and opted to stay; and 14 came here for the beauty, the lifestyle, or because they believed that BC would be a good place to raise a family.⁷¹
- According to David Birch in his book Job Creation in America: How the Smallest Companies Put the Most People to Work, as much as 90 percent of the jobs in the American economy are being created by what he calls "high-innovation firms" – small companies with less than 20 employees. Birch maintains that these firms, which rely primarily on a skilled and intelligent work force, will locate in environments that "bright, creative people find attractive."⁷²
- A recent survey of high technology sector CEOs confirmed that the west coast lifestyle "continues to be cited by high technology company leaders as a key driver in the decision to grow companies in BC."⁷³

Businesses are increasingly drawn to the same life-style amenities because of a growing reliance on a skilled and specialized workforce. In many non-metropolitan areas of the U.S. Pacific Northwest and British Columbia, a wave of resettlement has helped to spur economic growth. For one thing, the relative excess of supply of people trying to make a living in attractive

⁷⁰ Coast Writers Research and Communications. 1998. *Environmental Quality and Regional Economic Development*. Prepared for Environment Canada, Environmental Conservation Branch. p. iii.

⁷¹ McCullough, M. "Quantum Valley". *Georgia Straight*. Volume 32. Number 16151. December 3-10, 1998.

⁷² Birch, D. 1987. *Job Creation in America: How the Smallest Companies Put the Most People to Work*.

⁷³ British Columbia High Technology Industries Association. *Technology Industries in BC: A 1997 Report Card* at <http://www.bctia.org/industryreport/executive.htm>

areas has helped to keep labour costs down. Access to a lower-cost, high-quality labour supply can act as a powerful magnet for potential employers. For example, the growth in high-tech employment in Washington, Oregon and Idaho reflects companies' determination to locate in areas that had attracted skilled workers, while capturing the benefits of wage levels below those paid in southern California.

The wave of rural resettlement occurring in some regions represents an interesting reversal in the patterns of employment migration. Historically, workers left communities to go to where the work was - to mill, mining, and manufacturing centres close to raw materials or markets. By contrast, knowledge-based industries represent a departure from this historic pattern. Highly skilled workers have more freedom to live where they want to. They can 'tele-commute' to work through computers and modems. They can establish their business in smaller, more livable communities and connect with clients and the world through the Internet.

Whether it is software development, consulting or research services, many new businesses are taking advantage of the Internet to access information, maintain clients, and market services. The Internet gives service sector entrepreneurs tremendous flexibility to locate their business based on quality of life factors, rather than proximity to markets. Essentially, **these new economy workers are export businesses in rural communities since they export services that bring income into the community.** These new economy workers are seeking better quality of life, smaller communities and access to outdoor recreation opportunities, especially wilderness, parks, wildlife viewing, fishing and skiing opportunities. Safer communities and lower cost housing are also major quality of life factors attracting mobile workers to attractive rural communities.

To date, much of the effort directed at attracting high technology businesses has focused on urban and suburban British Columbia. However, the experience from the U.S. Pacific Northwest suggests that smaller communities can participate in both hardware and software technology development if suitable incentives are in place and the high technology opportunity is matched to the size and capabilities of the local knowledge-sector workforce.

Recent studies show that BC's high-tech sector is robust province wide, with almost one-third (30%) of high technology companies located outside

the Lower Mainland.⁷⁴ Vancouver Island has 17% of the province's high-tech companies, and the BC interior has 10%. These non-urban high-tech firms are diverse, and include information technology products and services (42%), environmental services (11%), electrical and manufacturing technologies (12%) and communications (6%).

To date, northern BC and some other regions have not shared to the same extent in the expansion of the high technology sector in BC, with only 3% of high-tech firms located outside the Vancouver, Vancouver Island and BC interior. This suggests that there are barriers to the establishment of firms in northern BC, and some other remote regions. These barriers may include the limited communications and transportation infrastructure, limited pool of skilled labour and less attractive social and environmental amenities compared with southern BC communities. These barriers mirror the experience in the U.S., where mid-west and some eastern communities are experiencing difficulty in competing with western U.S. states for knowledge-based businesses.⁷⁵

Given the broad trends, however, knowledge-based industries and workers represent a very significant economic opportunity for so many rural BC communities and regions. Many BC towns are well positioned to take advantage of this accelerating in-migration of knowledge-based workers due to their attractive environmental amenities, cultural settings and recreational opportunities. This is especially significant given that investments in the technology industry provide substantial economic spin-offs for the local and provincial economy (see Table 2).

Table 3: Annual Growth Rate of Key Business Indicators for the BC high technology Sector

Job Creation	39%
Revenues	48%
Exports	54%
R&D Investments	39%
Tax	71%
Assets	51%
Shareholder's Equity	49%

Source: BCTIA. 1997. *Technology Industries in BC. A 1997 Report Card*

⁷⁴ BC Technology Industries Association. *BC Technology Report Card '99*. Vancouver, BC.

⁷⁵ "The Great Divide: Business Tells Why It Can't (Won't) Move East." *Wall Street Journal*. March 10, 1999. NW1.

4.4 Tourism

Globally, tourism is now the world's largest industry with 1997 revenues exceeding \$4 trillion. Global tourism revenues account for 7 percent of total world exports and 26 percent of international trade in services and continue to grow at about 9 percent annually.⁷⁶ Tourism is one of the fastest growing sectors of the BC economy.⁷⁷ Consider that:⁷⁸

- BC tourism revenues reached \$8.5 billion in 1997, making tourism BC's second largest land-based industry, behind forestry.
- Tourism BC projects an increase in tourism spending to \$9.9 billion in 1999, up 47 percent from 1996.
- More than 235,000 British Columbians are employed in tourism-related jobs.
- British Columbia is ranked as the No. 2 touring destination in North America (behind California).

4.4.1 Tourism and Rural Job Creation

Clearly, tourism is a prime growth engine for rural British Columbia because it can create new and relatively stable long-term jobs for local residents. This is significant considering that most North American tourism destinations have enjoyed stable or expanding markets for several decades, at a time when primary resource industries have experienced cyclical, and too often permanent, downturns in jobs.

Tourism jobs are readily accessible to local residents, as they often require a familiarity with the region. Many tourism jobs are seasonal, which can be a disadvantage for those seeking full-time work. (Although as BC's tourism industry matures and diversifies its products, many locations and businesses are becoming multi-seasonal.) On the other hand, seasonal and part-time work can be well suited to people who do not want full-time work, such as students and working parents. Tourism is particularly important as a generator of youth, entry-level jobs. As well, the expanding tourism market offers opportunities for career advancement into supervisory and managerial positions for many young people.

⁷⁶ Power, T. 1996. *Lost Landscapes and Failed Economies: the search for a value of place*. Island Press, Washington, DC. p. 214.

⁷⁷ BC tourism sectors (with approximate percentages of 1997 revenues) are: urban (27%); business and convention (19%); touring (19%); outdoor (13%); skiing (9%); and golf (2%).

⁷⁸ Tourism British Columbia, at <http://www.tbc.gov.bc.ca/tourism/tbccorporate.htm>.

4.4.2 Tourism and Regional Economic Development

Tourism is important to the economic diversification and health of many rural BC communities. Unlike other land-based industries, tourism imports the market to the product, rather than export the product out of region to distant markets. As such tourism serves as a vital element in the trade within local and regional economies. Tourism is the only industry with a positive net flow of funds from wealthier to poorer regions, and from urban to rural communities. Because of the nature of the tourism sector, the majority of the money spent is imported from other geographic regions, and is new to the host community. As a result studies show that **tourism revenue can result in a five to seven times multiplier effect in local communities.**⁷⁹

Tourism in rural areas also acts as a 'recruiting' device, attracting new permanent residents and businesses to an area. Hence, tourism can be an important element in revitalizing the local economy by putting the spotlight on the community and emphasizing its attractive features. Tourism expenditures also support construction, public administration, professional, and medical and educational services; none of which are low paying.

Tourism also provides exceptional lifestyle and entrepreneurial opportunities. In fact, tourism has the highest owner/operator ratio of any sector in British Columbia. **The number of tourism-related businesses in BC grew over 50% in 6 years, from less than 10,000 in 1990, to more than 15,700 in 1996.** In places like Tofino, Whistler, the Okanagan Valley, Invermere, and Nelson, tourism is the leading sector of the economy.

4.4.3 Ecotourism

Ecotourism is that component of the tourism industry that focuses on the experiencing of natural or indigenous culture in a way that minimizes impacts. Ecotourism appeals to a global market, particularly well-educated, affluent, urban residents from developed countries. BC's high quality and diverse natural scenery offer the competitive conditions for the province's expanding eco-adventure tourism sector. For example, the wilderness, wildlife and scenic values of many BC wilderness areas – Tatshenshini, South Moresby, Ts'yl-os, Clayoquot Sound, Northern Rockies – are of

⁷⁹ Shoaf, W. "Sundance". Article for Business Coalition for Sustainable Cities, at <http://www.earthpledge.org/progress/wpapers/wpsundan.html>.

world significance and sufficient calibre to attract paying clientele from around the world.

Tourism BC estimates the value of ecotourism to be \$350 million annually.⁸⁰ Significant as this is, as important is the fact that BC rates as a top adventure tourism destination in North America.⁸¹ Ecotourism is the fastest growing segment of the BC tourism sector. Furthermore, the opportunities for expansion of BC's ecotourism sector are substantial. This is important given that one-half of U.S. adults – or 98 million persons – took an adventure vacation within the past five years. A recent national survey of the ecotourism and adventure tourism sector in Canada concluded that "Canada's natural environment, encompassing vast unspoiled wilderness areas and spectacular scenery is ideally suited to the development of adventure travel and ecotourism and is already the basis of an internationally competitive product base."⁸²

4.4.4 Communities in Transition: Tofino and Ucluelet

The economic spin-offs of ecotourism can be substantial for local communities, and bring forth a unique set of opportunities and challenges. For example, the natural values of the Clayoquot Sound region have contributed to a thriving tourism industry in Tofino over the past 15 years. Tofino diversified its economy decades ago, and had the hotels, restaurants, shops, and tourism operators in place to take advantage of the explosive growth in ecotourism over the past 15 years. The challenge facing Tofino now is to develop the infrastructure needed to support the on-going tourism growth, such as water services and sewage treatment.

More recently, Tofino's neighbour Ucluelet has also begun to develop as a destination tourism resort. Ucluelet has experienced more of the economic dislocation associated with declines in the forest and fishing sector. Unemployment in this community is 15.6 percent, compared with 4.3 percent for Tofino. But Ucluelet is beginning to diversify into tourism, with plans to establish camping, coastal hiking trails and tourist facilities and a sophisticated interpretive centre that would explain the rich natural and

⁸⁰ Tourism BC.

⁸¹ Travel Industry Association of America. January 1998. *The Adventure Travel Report, 1997*.

⁸² The Randolph Group. January 1997. *Adventure Travel and Ecotourism in Canada: Strategic Framework for Development*. A report prepared for the Canadian Tourism Commission.

aboriginal heritage of the region. As Mayor Bill Irving says, "we're not a commodity economy anymore and we don't want to be."⁸³

4.4.5 Tourism Sensitivity to Environmental Degradation

While BC lacks the competitive advantage of the warm climate of the tropics or the well-developed cultural attractions of many other destinations such as Paris or Rome, BC's tourism niche is environmental quality. Our prime features are wild and varied landscapes that provide world class settings and scenic backdrops for many tourist activities, especially for direct outdoor adventure and ecotourism experiences. Hence, the widely recognized and successful use of the marketing slogan 'Super, Natural' to describe BC's environmental tourism focus.

People come from around the world to experience BC's superb natural beauty, wilderness, and wildlife endowment. The challenge for the tourism industry, therefore, is to ensure that development pressure from this industry, and especially from other sectors such as logging and mining, do not threaten the 'natural asset' base on which this sector depends.

A BC tourism industry task force, led jointly by Tourism BC and the Council of Tourism Associations of BC, launched a growth management initiative in 1996 that identified constraints and resource conflicts facing the tourism industry in BC.⁸⁴ Two types of conflicts were identified:

1. Conflicts resulting from the impacts of other resource users on tourism values. The leading impacts on tourism by other resource uses were reported to be loss of wildlife and fish habitat; destruction of viewsapes; reduced access to land for development of ski resorts, golf courses, and lodges; and conflicts with other industries, particularly forestry; and,
2. Conflicts resulting from tourism impacts on the environment, such as overuse, waste disposal, traffic congestion and conflicts between mechanized and non-mechanized activities.

Industry participants noted that BC had been very successful in the promotion of the 'Super, Natural' image but expressed concern about the deteriorating quality of natural settings and the competition from other destinations with higher quality facilities and services. Visible logging and

⁸³ "Tofino Ahead in Adapting to New Reality." *Vancouver Sun*. Saturday, March 20, 1999. p. B3.

⁸⁴ Price Waterhouse and the ARA Consulting Group. 1996. *Tourism Industry Product Overview*. Prepared for Tourism British Columbia and the Council of Tourism Associations.

mining development were singled out as examples of how deteriorating quality of setting threatened to undermine the overall quality of the visitor experience.⁸⁵

The tourism task force called for policies to protect the high quality natural setting for outdoor and touring experiences, which it was felt were being compromised by other sectors. Key priorities identified by the tourism industry participants in the self study were to "maximize sustainability of the resource" (which received by far the most votes with one-third more than any other); and, tied for second place was "maximize the quality of experience seen by visitors." Clearly, maintaining environmental quality is a major concern and priority for BC tourism operators.

Given BC's outdoor-oriented tourism focus, and the fact that BC's tourism industry has successfully marketed the province as 'Super, Natural,' the BC tourism industry is highly sensitive to environmental degradation that undermines its particular brand image and market niche. If the land base is not properly managed to conserve and protect these environmental amenities, the potential growth of this sector will be curtailed and eroded as the attractiveness of BC tourism destinations decline relative to other tourist destinations. On the other hand, if British Columbians properly manage and conserve the outstanding scenic viewsapes and diversity of natural landscapes of the province, these will become increasingly attractive as wilderness and pristine landscapes are lost elsewhere in the world. As Power notes:

"Commodities are cheap and easily replaced – [whereas] remnant natural landscapes are scarce, relatively unique, and irreplaceable assets. In many cases, if we opt for extractive activity to keep the local economy afloat, we will be sacrificing what is scarce and unique for what is common and cheap."⁸⁶

4.4.6 Managing Tourism Impacts: the Tourism Zonation System

Developed properly, tourism can co-exist with resource development activities as long as careful planning is undertaken to conserve and

⁸⁵ Price Waterhouse and the ARA Consulting Group. 1996. *Tourism Industry Product Overview*. Prepared for Tourism British Columbia and the Council of Tourism Associations. p.4.

⁸⁶ Power, T. 1996. *Lost Landscapes and Failed Economies: the search for a value of place*. Island Press, Washington, DC. p. 18.

manage tourism values across the land base, such as key viewsapes, fisheries, wildlife habitat, wilderness areas and parks. To be sustainable, tourism must be designed to be compatible with conservation priorities. For example, in the case of protected areas and wilderness, a system called the Tourism Zonation System (TZS) was developed by Ethos Consulting, the BC Wilderness Tourism Council and the BC Ministry of Tourism in the late 1980s. (The Tourism Zonation System approach has attracted international attention through the World Congress convened annually by the U.S.- based Adventure Tourism Society.) This Zonation system subdivides the landscape into Front, Mid and Backcountry zones based on the level of existing development and the quality of the wilderness.⁸⁷

Under this approach, Backcountry areas of high quality wilderness are identified as zones that should be retained free of built commercial development and facilities, either as parks or designated wilderness areas. Ecotourism in these areas is typically done using non-mechanized transport (e.g. on foot, horseback, raft, kayak, or canoes) with experienced outdoor guides. In the Mid Country, the zone outside of core wilderness and protected areas but adjacent to them, small, nature-oriented lodges are the focus, providing service facilities and amenities within a high quality natural environment. In the Mid Country zone, much of the tourism activity may occur in adjacent wilderness and protected areas, but the facilities are kept outside these backcountry zones. The Front Country zone is the location for intensive tourism development, such as golf courses, ski hills, and resort developments, located on, or close to, main transportation corridors.

Utilizing a management tool such as the Tourism Zonation System enables the rationalization of tourism development in a fashion which both optimizes the tourism development opportunity without degrading the environmental quality of the landbase. It is a means to achieve a *Jobs and Environment* solution.

4.5 Alternative Energy

British Columbians are fortunate to be blessed with abundant energy sources. BC is self-sufficient in all energy sources except oil, and is an exporter of coal, natural gas, and electricity.⁸⁸ British Columbians are also

⁸⁷ Ethos Environmental Inc. 1998. *Tourism and Protected Areas Management in British Columbia*. A background report prepared for BC's Parks Legacy Panel.

⁸⁸ BC Statistics at <http://www.bcstats.gov.bc.ca/data>

major energy consumers; we use about 20 % more energy per person than the average Canadian, and 300 % more than the average Japanese.⁸⁹ That makes British Columbians among the world's most consumptive citizens on a per capita basis.⁹⁰

This being so, there are tremendous opportunities to reduce energy consumption in British Columbia, especially for industrial use (which accounts for about 50 % of consumption followed by transportation at 25 %). Some progress has already been made and needs to be further encouraged. For example, BC Hydro's Power Smart program has provided information and financial incentives to encourage efficient use of electricity by residential, commercial and industrial users. The energy savings gained by Power Smart by August 1992 were enough to supply all the electricity needs for 70,000 homes.⁹¹ These 'demand-side management' programs can and should be an essential component of a sustainable energy strategy for BC.

Development of alternative energy sources offers the promise of cleaner energy for BC and a source of high technology jobs. For example, biomass energy, fuel cells, hydrogen fuels, geothermal energy, ocean (tidal and wave) energy, solar and wind energy are some of the cleaner energy alternatives than can be pursued. British Columbia has an opportunity to convert its comparative advantage in energy *resources* into a comparative advantage in energy *technologies and expertise*.⁹² For example, BC is a world leader in developing new technologies for hydrogen fuel cells (described below). This expertise in alternative energy can benefit the environment in BC and elsewhere while providing significant economic advantages to the province. As US President, Bill Clinton, recently remarked, "There is a huge body of business evidence now showing that energy savings give better service at lower cost with higher profit. We have

⁸⁹ Ministry of Environment, Lands and Parks. 1993. *State of the Environment Report for British Columbia*. Victoria, BC. p.iii.

⁹⁰ The Canadian 'ecological footprint', the amount of biologically productive space needed to support one Canadian is estimated at 7 hectares, the fifth highest in the world (behind Iceland, New Zealand, United States, and Australia). It has been estimated that humanity as a whole uses one third more resources and ecological services than nature can regenerate. Wackernagel, M. et al. 1997. *Ecological Footprint of Nations*. Center for Sustainability Studies, University Anahuac de Xalapa, Mexico.

⁹¹ Ministry of Environment, Lands and Parks. 1993. *State of the Environment Report for British Columbia*. Victoria, BC. p.8.

⁹² Specific recommendations for government to undertake research and development of energy alternatives are contained in the BC Round Table on the Environment and Economy report, *A Sustainability Strategy for Energy*. Victoria, BC. pp. 32-33.

to tear down barriers to successful markets and we have to create incentives to enter them.”⁹³

4.5.1 Ballard Power Systems

Ballard Power Systems, a Burnaby-based company, is the world leader in developing and commercializing what are called ‘proton exchange membrane fuel cell power systems.’⁹⁴ Ballard’s best-known product is the Ballard Fuel Cell, a zero-emission engine that converts natural gas, methanol, or hydrogen fuel directly into electricity without combustion. Ballard Fuel Cells are currently being used by leading international companies, including Daimler-Benz, General Motors, Honda, Nissan, Chrysler, Hitachi, Volkswagen, and Volvo to develop environmentally-clean stationary electric plants and zero-emission vehicles. In Vancouver, BC Transit completed training drivers and a three-bus Ballard Fuel Cell powered demonstration fleet entered service recently.

Interest in fuel cell automobile engines continues to grow as major automakers unveil fuel cell prototypes. Several major automakers – notably, Nissan, General Motors, and Honda – intend to have commercial fuel cell vehicles for sale by 2003 to 2005. Ballard Fuel Cells continue to be the leading technology in on-going tests of fuel cells.

Ballard Power exemplifies the type of enterprise that can help propel the new economy for BC, employing well-educated and well-paid British Columbians by exporting high technology to the world.

4.6 Tax Shift

Environmental degradation and chronic unemployment are persistent problems in the world today. In part, these problems stem from the fact that governments tend to tax the activities that society wants to encourage – such as work, saving and investment – but generally do not tax the activities society wants to discourage – such as throughput of energy and raw materials, and the production of waste. As a result, there are powerful

⁹³ President Bill Clinton, quoted in “Climate protection for fun and profit.” *Rocky Mountain Institute Newsletter*. Fall/Winter 1997. P.1 at <http://www.rmi.org/newsletters/97fwnl/cover.html>

⁹⁴ For more information on Ballard Power Systems see www.ballard.com

incentives which have been built into the economy to "overconsume nature and underemploy people."⁹⁵

'Tax shifting' is about doing the opposite – removing taxes from environmental/social 'goods' and putting them on 'bads'. In practical terms, tax shift involves the use of environmental taxes and charges to discourage waste and the drawdown of precious natural resources, while offsetting that by reductions in personal and corporate income taxes. Tax shift thus encourages work and the employment of people (by leaving more of their pay cheque in their pockets after taxes) while discouraging the wasting of resources and pollution of the environment. Tax shift, or ecological tax reform, is thus about achieving a "wider use of labour and a wiser use of nature."⁹⁶

Tax shifting is an attractive policy option because it simultaneously addresses three problems directly: unemployment, environmental degradation, and economic inefficiency. It does this by using taxes, the most powerful incentive-based instrument available to government. As the authors of a recent Pacific Northwest study of ecological tax reform conclude:

"Taxing labour and capital tells businesses and households to scrimp on workers and tools – in other words, to practice underemployment and underinvestment. Taxing the gifts of nature (or more, precisely, taxing actions that degrade the gifts of nature) tells people to conserve these gifts."⁹⁷

While the public and business leaders object to increased personal and corporate taxes, many people can understand the concept that the government should tax "bads", like pollution, resource depletion, and toxic waste, rather than "goods" like jobs, savings and investment. For example, a recent U.S. national survey found that 2 out of 3 voters surveyed favored

⁹⁵ European Union. 1993. *White Paper on Growth, Competitiveness, and Employment* at <http://www.web.apc.org/ecoeco/>

⁹⁶ Gale, Robert. 1998. *Ecological Tax Reform* at <http://www.web.apc.org/ecoeco/>

⁹⁷ Thein Durning, Alan. and Yoram Bauman. 1998. *Tax Shift: How to Help the Economy, Improve the Environment, and Get the Tax Man Off Our Backs*. Northwest Environment Watch, Seattle, Washington.

increased environmental taxes along with reduced personal taxes as a way to reform the U.S. tax system.⁹⁸

From a corporate perspective, tax shift is essentially a swap between reduced wage costs and increased pollution and resource use charges. Companies are thus encouraged to employ more people than they otherwise would because their labour costs are lower, and also to be efficient with their use of resources and to control wastes to avoid prohibitive environmental taxes. Companies that are wasteful and destructive to the environment are likely to see negative results on their bottom line. Tax shift thus provides appropriate signals to the marketplace and provides an opportunity for public policy makers to propose tax shifts in terms of win-win solutions that create jobs and protect the environment.

Tax shift can be an important step forward in BC to sustaining our environment and quality of life. British Columbians are among the highest per-capita energy consumers and waste producers on Earth. In 1990, the average British Columbian generated almost 2.2 kilograms of waste per day – about three times the rate of Sweden. Almost half of this waste comes directly from homes.⁹⁹ Canada as a whole is an energy intensive country, but as mentioned, British Columbians are even more so. On average, a British Columbia resident consumes about 330 Gigajoules of energy per year, roughly equivalent to 9,500 litres of gasoline per year.¹⁰⁰ Tax shift offers an effective mechanism to reduce these rates of resource overuse in ways that would not have to be prohibitive to industry and consumers and, in fact, would encourage the innovation and efficiency to make BC businesses more competitive in the next century.

To test the viability of a tax shift policy for BC, a recent study examined the potential for ecological tax reform, through taxes on carbon emissions, water use, and solid waste. This study examined two scenarios, a:

1. "tentative" ecological tax reform scenario (with lower rates of taxation) and an

⁹⁸ International Communications Research, June 1998 survey of 500 registered voters, commissioned by Friends of the Earth, results reported at http://healthandenergy.com/green_taxes.htm

⁹⁹ Ministry of Environment, Lands and Parks. 1993. *State of the Environment Report for British Columbia*. Victoria, BC. p.7.

¹⁰⁰ Ministry of Environment, Lands and Parks. 1993. *State of the Environment Report for British Columbia*. Victoria, BC. p.5.

2. "ambitious" ecological tax reform scenario.¹⁰¹

The study concluded that there is significant potential to raise tax revenue through ecological taxes. Phased in over 20 years, ecological taxes were estimated to be capable of generating between \$300 and \$484 million annually in revenues in the year 2000, increasing to \$1.3 billion to \$2.7 billion in 2020. (In both scenarios, the majority of the tax revenues come from the CO₂ tax.)

In both ecological tax scenarios, significant reductions in water consumption, carbon emission and solid waste generation were predicted by 2020 in comparison with a "business as usual" scenario. Depending on the ecological tax scenario chosen, water consumption was forecast to decrease 15% to 35%; solid waste generation would decline by 25% to 50%; and CO₂ emission would diminish by 8.5% to 15%.¹⁰²

Implementation of the ecological tax reform was also predicted to result in increased jobs. The 'tentative' (or lower target) tax reform scenario was predicted to generate an additional 126,000 jobs by 2020, an increase of 4.4% over the baseline estimate, while the 'aggressive' (or higher target) scenario generated approximately 254,000 jobs by 2020, an increase of 8.9%. As the study states, there is "significant potential to influence consumer behaviour, generate revenue, and create employment."¹⁰³

In terms of policy for ecological tax reform in BC, the study concluded with the following three recommendations:

1. Ecological taxes should be known well in advance and implemented gradually over a ten to twenty year period to allow businesses and households to take advantage of technology turn-over, thus minimizing costs associated with the transition to ecological taxes.
2. At the time the ecological taxes are implemented, the tax revenue should be used to finance tax reductions in existing less desirable taxes (such as reduced payroll charges, sales taxes or income tax).

¹⁰¹ Taylor, A. 1999. *Ecological Tax Reform: Estimated Environmental and Employment Effects in British Columbia*. Unpublished masters research project. School of Resource and Environmental Management, Simon Fraser University, Burnaby, BC.

¹⁰² Ibid., pp. 43-46.

¹⁰³ Ibid., p. 50.

3. Any policy for ecological tax reform should include measures to offset both competitive effects and regressivity (i.e. disproportionate burdens) on business and households respectively.

Tax shifting is being successfully used in at least eight European countries, including Denmark, Sweden, Germany, and Britain, and in Oregon. By increasing taxes on harmful activities such as high energy consumption and pollutant emissions, and at the same time, reducing taxes on payroll, income or sales, these jurisdictions have demonstrated that they can create employment and develop their environmental industries while maintaining government revenues.¹⁰⁴

¹⁰⁴ A BC "green paper" on tax shifting was released in November 1999. A backgrounder is available at <http://www.fin.gov.bc.ca/tbs/Greenbkg.htm>

5. IMPLICATIONS FOR BRITISH COLUMBIA

5.1 *The Traditional BC Economy*

Historically, the BC economy was built on exploiting an abundance of natural resources, primarily timber, fish, and minerals. Through the past century, BC companies were successful in extracting, moving, and marketing these resource commodities around the world. For many years this was a successful economic strategy, providing the foundation for a vibrant economy and high standard of living. But times are changing and like Oregon of 10 years ago, the resource-based economy of BC is now struggling. Resource companies increasingly face declining, or more difficult, access to resources, rising costs, and increasingly stiff competition from lower cost producers in other parts of the world.

British Columbia's traditional export products such as lumber and minerals are global commodities, products made uniformly in large quantities which must compete mainly by price with other virtually identical products from other countries. With low per unit profit margins, this means BC producers have to compete largely by reducing costs if they are to succeed in these markets. Commodity producers depend on high shipment volumes to generate profits but are increasingly undermined by lower cost producers in other parts of the world. In a time when large portions of the world such as Asia, Russia, and South America are in recession, the situation is exacerbated since these countries are forced to cut commodity prices in order to survive. At the same time, such dependency on high volume shipments places a tremendous strain on the BC landbase to produce the basic raw materials – the minerals, fish, and lumber – needed for high-volume production.

As well, long term trends in world markets are working against BC's commodity-oriented resource industries. For example, production of commodity wood products is increasing worldwide as more areas are brought into plantation forests. (Whereas in BC it takes 80 years and more to grow a tree to harvesting age, warmer places like Brazil, Chile, New Zealand and Indonesia require only 10-30 years.) Furthermore, some long-standing markets such as Europe are becoming self-sufficient in forest products and even competing with BC in traditional markets in Asia and the

United States. Too, demographic trends (i.e. the aging of the North American baby boom generation and markedly lower birth rates) are dampening the demand for single-family homes, the main driver of demand for lumber in the U.S. As well, some overseas customers are beginning to turn away from BC old growth for environmental reasons.

It is a distinct possibility that the world will have an over-abundance of poor quality, commodity wood in the decades ahead, as the majority of the world's remaining old growth forests are logged out and the global industry focuses more and more on second growth and fast-growing forest plantations. The consequence will be fierce competition and slim profit margins for commercial wood producers. This will happen at the same time that BC is depleting its reserves of economically accessible old growth, a premium product that has historically given BC forest companies a competitive advantage due to the exceptional size and quality of the old-growth timber.

In many parts of BC the best of the commercial old-growth forests have been cut, such as the lower elevation sites on Vancouver Island, the Queen Charlotte Islands/Haida Gwaii, the Lower Mainland and portions of the south and central interior. The second growth forest which will replace it is much lower quality and has not been managed to enhance value, for example through thinning and pruning.¹⁰⁵ As well, the costs of logging have risen due to environmental protection measures, and the higher costs of accessing increasingly remote forests. As former Forest Commissioner Dr. Pearse recently concluded, "the prevailing uncertainty about future timber supplies, the alarming low level of investment in both manufacturing plant and in the forests themselves, and above all BC's obsolete forest tenure system are all urgently in need of attention."¹⁰⁶

A BC rural economy based on specialization in a few resource commodities and exports looks increasingly unstable, especially in the emerging

¹⁰⁵ Thinning is done to reduce the number of young trees in a stand and concentrate wood growth of fewer stems, creating fewer, larger trees of higher quality. Pruning removes branches from the lower part of trees, increasing the quality of the wood in each tree through less knots and higher quality wood fibre. Commercial thinning has averaged only 150 hectares per year over the ten year period from 1985 to 1994, or about 0.1% of the area harvested each year. Prior to 1991, pruning was virtually not done on BC Crown land, except in the Vancouver Forest region, where a modest 246 hectares per year were thinned annually from 1983 to 1990. Some increase in thinning and pruning has been done in recent years through FRDA and FRBC funding but remains minimal. Ministry of Forests. 1994. *Forest Range and Recreation Resource Analysis*. Victoria, BC. p. 80-82.

¹⁰⁶ Pearse, Peter. "Why are we lost in the woods?" Editorial Forum. *Vancouver Sun*. Tuesday, January, 12, 1999. A1.

interlocked global economy. This is because the factors determining the economic health of commodity-based and export-oriented local communities are dictated by international markets, not by those local communities. This situation is made worse by trends in global financial markets. After decades of rising prices in an inflationary fiscal environment, which drove up commodity prices and helped resource-dependent economies, there is now low and falling inflation in many parts of the world. There is considerable concern building that the global economies may face a period of *deflation* – a situation in which prices begin to fall in response to a global oversupply of products and a credit crunch among consumers, (possibly exacerbated by the recent Asian economic crisis). Commodities especially have experienced steadily declining prices, making it more difficult for commodity-based industries to remain profitable. While the economic forecast is by no means certain, the possibility of deflation is extremely worrisome for resource-dependent communities and economies. This is particularly relevant for BC.

During the glory days of resource abundance, the boom-bust cycles were more easily weathered. But now, as the high quality resources in BC are diminishing, commodity resource-dependent communities face increasingly difficult obstacles to continued prosperity. Such communities are increasingly being trapped in the economic vise between rising costs of resource access into more remote and poorer quality resources and falling prices in world commodity markets. As the current global situation shows, a downward economic spiral can occur as corporations become reluctant to re-invest in their plants and infrastructure as profits are squeezed and the resource scarcity becomes a concern. One local impact of this can be that rural residents become increasingly reluctant to invest in homes and businesses and to spend money in their communities, as the fear of job loss and the general uncertainty about the future looms. This can lead to a vicious circle as fear and uncertainty undermine rural economic confidence and investment. The current instability of traditional commodity-oriented resource industries exacerbates the malaise affecting many Canadian and US mining, mill, and agricultural towns and the reluctance of individuals and businesses to invest in them even when local wages are high.¹⁰⁷

Increasingly, the consequences of global competition in commodities are red ink for forestry and mining companies, mill closures and layoffs for BC

¹⁰⁷ Power, T. 1996. *Lost Landscapes and Failed Economies: the Search for a Value of Place*. Island Press, Washington, DC. p. 11.

workers. The 'old economy' solution to this situation holds little appeal, as the only way to compete in global commodity markets given BC's higher labour costs is to increase labour productivity through mechanization. This means replacing machines for people, resulting in fewer and fewer jobs, despite high resource throughput. A second option, to lower other costs such as social and environmental standards, calls for choices that many British Columbians find unpalatable. Therefore the most sensible way to respond would seem to try to break the 'vicious cycle' downward spiral by moving away from the commodities markets. To do this, changes need to be made to move BC resource sectors to a strong value-added market position.

5.1.1 The 'Rearview Mirror'

Despite all the foregoing, many British Columbia opinion leaders and decision-makers remain stuck in a primary resource commodity mentality. It is as if they are looking in the rearview mirror at the economy, rather than ahead through the windshield. As Goldberg notes in a recent paper for the BC Business Council:

"We still cling to a number of limiting beliefs that impede our ability to think and act more broadly about new economic arenas. First among these limiting beliefs is the notion that we are primarily a resource producer so non-resource opportunities are not worth great attention. [This] constrains us from seeing ourselves as able competitors for Ontario which is the diversified economic leader. Thus we do not seek out as vigorously as we could opportunities in manufacturing, advanced technology and other key sectors of the economy. We can and do compete in a broad array of 21st century sectors [services, technology, knowledge-based businesses, and value-added resource products] so we must cast aside our limiting beliefs once and for all."¹⁰⁸

Despite the undercurrent of real economic change occurring in BC and the world, too many policy makers remain fixated on the economic forces and patterns of the past and consequently fail to see the opportunity that lies

¹⁰⁸ Goldberg, M. September 1998. *The British Columbia Economy into the Millennium: Perspectives and Possibilities*. A Discussion Paper prepared for the Business Council of British Columbia. Faculty of Commerce and Business Administration, University of British Columbia. p. 21.

ahead. In traditional natural resource economies such as BC, the conventional thinking on economic development is what is called the 'economic base model'. According to this view, natural resources such as timber, minerals, or agricultural crops are the economic engine of a local economy. Extracting, processing, and exporting these resources provides the income that allows people in the community to import the goods they need. Communities can survive, according to economic base case theory, only as long as the natural resource base remains viable. And anything that threatens the viability of that resource base is perceived to threaten the viability of the whole community.

When the fundamental drivers of the economy begin to change – as they are right now in the shift from natural capital to human capital as the source of wealth in the new economy – most people's perception of what is happening tends to be tied to past patterns of economic activity. They maintain the 'rearview mirror' perspective on declining resource industries as an imminent threat but fail to see the current economy emerging. It's as if they can't see the new prospects for future prosperity that are right in front of them. This seems to be tied to a sociological response to change. When patterns of economic activity change, there is often considerable lag in the cultural adjustment. And one of the last things to change it seems is the shared collective understanding of what drives the economy.

BC's traditional 'base case' economic model is grounded in two assumptions that are likely much less valid than they once were.

1. That job and industry location is dictated by facts of geography, such as the location of natural resources, transportation costs, and proximity to markets.
2. That people have to move where jobs are located, to work in a large mill or factory of a dominant employer in a region.

Traditionally, this has been many people's experience of the economy. Such rearview mirror thinking supports local economic development policies that seek to recruit large scale businesses, or retain existing ones, through tax breaks and subsidies. The problem is that economic development policies, based on these erroneous assumptions, are unlikely to work in the world that awaits us as we enter the 21st Century. New approaches are needed that will respond to a new reality.

Increasingly in today's world, regional economic development strategies based on 'propping up' a single primary industry invariably do not create the long-term economic prosperity and job stability that rural communities want and need. And while government bailouts may buy time for individuals and businesses to prepare themselves for job loss, relocation, or transition, they are unlikely to reverse the trend toward economic stagnation caused by the loss of confidence and re-investment in the community by the private sector and individuals. This is because in today's economy, government 'bailouts' do not and cannot address the fundamental constraints of increasing resource scarcity, the economic realities of global commodity markets, and the changing nature of the economy in which small enterprises are creating most new jobs. Typically, in a healthy economy, some industries and businesses are always expanding while others are contracting. Yet today when a mill or mine closes, industry and community leaders often react as if those workers – those people – have been permanently lost to the economy. This need not be. To counteract this misperception, governments can play a productive role in fostering economic diversification that will lead to renewed confidence and private sector investment in stagnating rural communities. By doing so, they offer individuals a realistic means of moving forward.

Increasingly as BC and North American moves into the new economy, regional economic development strategies based on propping up a single large employer in a primary resource industry is a losing proposition for rural communities. This is because extractive, natural-resource based industries represent a declining part of the overall economic base, employing fewer and fewer people and selling into global markets already saturated with low price commodities. British Columbians cannot expect to maintain a high standard of living by competing with commodity producers in other parts of the world with lower wages, lower environmental and health standards and either more abundant natural resources or faster growth rates.

The alternative, therefore, is to move rapidly to diversify local economic activity, by building on the outstanding environmental and social amenities that make BC unique. BC's natural wealth, social stability, and advanced infrastructure can be the foundation for drawing talented people and entrepreneurs to BC and retaining them to establish businesses in advanced services, tourism and high technology, and other knowledge-based industries. This can be done while also rapidly putting in place the

policy mechanisms to move BC's traditional resource to a sustainable footing, supporting advanced value-added and niche markets.

5.1.2 The New Economy: Looking Ahead

In an economy in which resources are increasingly mobile and manufacturing industries that rely on specific resources are a shrinking share of the national economy, labour has become an increasingly powerful factor in determining the geographic distribution of economic activity.

Whereas in the old economy, workers went to where industry was located, in the new economy, workers decide where they want to live, and the industries follow them there.

This Jobs and Environment view of economic development stresses that individual and business preferences for certain types of living environments strongly influences the location of economic activity. The economic geography of Canada and the U.S. has been transformed during the second half of the 20th Century as a result of the population acting on their preferences for particular living environments. Especially in the 1980s and 1990s, the population boom in scenic rural areas testifies to the wide-ranging impacts of people's pursuit of preferred living environments. For example, the Okanagan, Gulf Islands, east coast of Vancouver Island, and Sunshine Coast of BC have seen migration influxes mirroring those that have occurred south of the border in scenic areas of southern Utah, western Montana, non-metropolitan Oregon and Washington. As Power observes:

"Recognition of the elementary economic facts that businesses care about labour supply and that people care where they live give us a new perspective on local economic health and development. Together, they show that quality of social and natural environments can become an important resource in fostering economic vitality."¹⁰⁹

Our Competitive Edge: Quality of Life

To a increasing extent, the future prosperity of our province and the quality of life of many urban and rural residents will depend on transforming the BC economy away from *extracting* natural resources, and towards using our *in*

¹⁰⁹ Power, T. *The Wealth of Nature*. Issues in Science and Technology. p. 48.

situ environmental resources. It's our scenic landscape, parks, clean air and water which will draw talented people and entrepreneurs to BC to build the new economy. Highly skilled people are moving to BC (or staying here, as is the case with Firoz A. Rasul, Chairman and CEO of Ballard Power Systems) because they like our high quality of life. They bring with them the essential ingredients of the new economy – talent, innovation, creativity and specialized training – in other words the 'human capital' that is highly in demand and highly mobile in the era of computers and Internet. As Goldberg notes:

"Our excellent living environment is increasingly important in attracting the creative, educated and skilled people needed to propel a number of knowledge-based industries forward. These industries are totally dependent on getting the highest quality people. Such people are footloose and can move almost anywhere they find attractive to work, to enjoy their families and engage in leisure activities."¹¹⁰

The new economy is emerging in BC, and the nature of this transformation is still being defined. This will move BC away from a historic dependence on primary resource extraction and processing, towards a diversity of economic activity and jobs – in high technology, tourism, value-added forestry, retirement services, and other knowledge-based and advanced service sectors. The result will be a new economy that has the potential to be vibrant and sustainable. As such, BC's environmental quality provides the competitive edge in the new economy, provided we steward it properly. Clearly tomorrow's reality will be based on 'Jobs *and* the Environment'.

Stability through Diversification

The key to the future of British Columbia's rural economies and communities is diversification, which means relying on a range of sectors to generate economic prosperity, rather than just a single dominant sector. Of course resource extraction will continue to play a core economic role, through employing fewer people than has been the case traditionally, and providing fewer new job opportunities. Indeed, to a large extent, job losses in logging and primary processing can be offset by growth in value-added

¹¹⁰ Goldberg, M. September 1998. *The British Columbia Economy into the Millennium: Perspectives and Possibilities*. A Discussion Paper prepared for the Business Council of British Columbia. Faculty of Commerce and Business Administration, University of British Columbia. p. 32.

processing and jobs in intensive management of the second-growth forests. But other economic sectors, such as tourism, knowledge-based industries, retirement services and other advanced services, will provide the engine for economic diversification, growth, and the stabilization of many rural communities as well as the provincial economy.

The Policy Challenge: Creating, Attracting and Keeping Skilled Workers

Traditionally in BC, the central policy challenge has been to attract the investment capital, to build industrial infrastructure and exploit BC's natural resources. In the future, it is likely that the central policy challenge will be to create, attract, and retain knowledgeable and skilled workers that are essential to the new economy. Advanced service sector economies require a pool of intelligent, creative workers with advanced skills. This requires that advanced education and specialized skills training are available to constantly generate these knowledge-based workers. And in order to remain competitive, the social and environmental conditions must be in place to attract and retain knowledge-based workers in the province. The knowledge sector will play an increasingly important role in the BC economy as long as a pool of talented and highly skilled workers can be sustained here; without them, the new economy will stall.

The shortage of skilled staff continues to be the most significant challenge facing companies within the growing high-tech sector. New economy CEOs report that one in every two employees leaving a BC high-tech company, leave the province – with half of them destined for the U.S. In addition 70 percent of CEOs report difficulty hiring executives, management and professional staff, while 76 percent have had difficulty in finding qualified research and development staff.¹¹¹

Key obstacles to attracting and retaining highly skilled and mobile workers include the comparatively high marginal tax rates of British Columbia compared with some other jurisdictions that compete for knowledge workers,¹¹² and the high cost of living, which is mostly a factor in the Lower Mainland and Victoria areas.¹¹³ The perception that British Columbia is a high-tax jurisdiction was widely reported by high-tech CEOs in a 1997 survey as a major limitation on the industry's ability to compete globally and

¹¹¹ BC Technology Industries Association. June 1999. *BC Technology Report Card '99*. Vancouver, BC, available at <http://www.bctia.org/>

¹¹² Ibid.

¹¹³ McCullough, M. 1998. "Quantum Valley." *The Georgia Straight*. December 3-10, 1998. pp. 15-17.

attract talent to BC.¹¹⁴ A similar sentiment has been expressed by other industry leaders and analysts about the Canadian federal tax rate.¹¹⁵ To address this, the provincial government has recently taken steps to reduce the top marginal tax rate by 2 percent to 49.5 percent of the basic federal tax.¹¹⁶ For an individual making \$80,000 per year, this means that BC now has the second lowest provincial tax rate in Canada, behind Alberta.¹¹⁷

Despite industry concerns around high taxation, BC's high-tech industry continues to grow and prosper. The sector added 2,300 new jobs in 1998, a 5.2 percent increase, which strongly exceeds the 0.9 percent employment growth of the overall BC economy. Most of these jobs are high paying, with the average technology salary now exceeding the average BC salary by 36 percent. The high-tech sector now generates \$5.2 billion in revenue and 46,100 jobs, making it one of the larger primary employers in the BC economy.¹¹⁸

The knowledge-based sector will play an increasingly important role in the BC economy and this can have many positive spin-offs for BC's rural communities. The industry is regionally diverse, with over 1 in 3 technology companies located outside the Greater Vancouver (as of 1998, 65 percent of high-tech companies are located in Greater Vancouver, 15 percent in the southern interior, and 17 percent on Vancouver Island. The percentage of companies located outside of Greater Vancouver has increased every year since 1994.)¹¹⁹ Furthermore, recent data suggests that when compared with other sectors, investment into the technology industry provides far greater payback into the economy for each dollar invested. On a national scale, Canadian high-tech companies exceed companies in other industries by 15% to 20% for growth in job creation, revenues, taxes paid and exports, and for identical levels of investment in research and development.¹²⁰

¹¹⁴ Ibid.

¹¹⁵ Conklin, D.W. 1994. *Reengineering to Compete: Canadian Business in the Global Economy*. Prentice Hall Canada Inc. Scarborough, Ontario.

¹¹⁶ Ministry of Finance and Corporate Relations. British Columbia Budget '99. *Budget Highlights*. Victoria, BC.

¹¹⁷ Ministry of Finance and Corporate Relations. British Columbia Budget '99. *Table H3: Comparison of provincial and Federal Taxes by province - 1999*.

¹¹⁸ BC Technology Industries Association. June 1999. *BC Technology Report Card '99*. Vancouver, BC. p. v.

¹¹⁹ Ibid., p.3.

¹²⁰ BC Technology Industries Association. 1999. *Technology Industries in BC. A 1997 Report Card*. Vancouver, BC.

The New Economy is Already Here

As is the case throughout the first world, the BC economy is already undergoing rapid change from primary resource production to a diversified, knowledge-based economy; one in which environmental quality is playing an increasingly important role. For example, the BC economy cut its reliance on resource extraction and related manufacturing in half from 21.4% of provincial GDP in 1976 to 10.7% in 1996.¹²¹

The gradual shift of the BC economy from resource extraction and manufacturing to service is evident in many BC communities. Evidence from the Jobs and Environment tour undertaken by BC Spaces during the winter and spring of 1998 suggests that rural British Columbia – especially in the south – is already well into transition to the new economy, and may in fact, be proceeding much more rapidly and extensively than conventionally believed. Communities where this transition is most apparent (both from analysis of the census data and the experience of the tour) include: eastern Vancouver island communities as far north as Campbell River; Tofino; Capital Region; Gulf Islands; Sunshine Coast; Whistler corridor; Lower Mainland; Okanagan Valley; Kamloops; Shuswap; East Kootenay; Nelson and the Kootenay Lakes region of the West Kootenay. Further north, other communities are just beginning to encounter the diversification and evolution of the local economy, particularly in the South Cariboo, 100 Mile House and Williams Lake regions. In all of these regions and communities, there has been growth and diversification of the local economy, with increasing numbers of knowledge enterprises contributing to the local economy.

Given this trend, through most of the areas toured by BC Spaces, there was strong community interest and support for new economy diversification. Indeed, many people see diversification through tourism, knowledge-based industries, and other service sector jobs as a means to achieve an economically and environmentally sustainable future.

Understanding and support for the 'green economy' transition among community leaders is most noticeable on southern Vancouver Island, the lower Mainland and southern interior where the economy is already well diversified. In more northern communities (Quesnel and north) and also on northern Vancouver Island, attitudes still seem predominantly focused on a

¹²¹ BC Ministry of Finance and Corporate Relations. June 1998. *Economic Performance and Outlook*. Victoria, BC.

traditional resource extraction, reflecting the high level of dependency these communities still have on traditional forestry and mining. However, the recent downturn in the Asian economy has accentuated awareness in many of these communities as to their vulnerability to global commodity markets.

As BC Spaces toured the province making presentations on jobs and the environment to town councils, chambers of commerce, and community public gatherings, audiences were asked how many people had moved to their community within the last three to five years. Typically, as much as thirty percent of the audience would fall into this category. Interestingly, a sizable portion of these people indicated that they came to these rural communities for lifestyle reasons, and had arrived without promise of employment. Subsequently, many of these people found the means to create their own job, usually in the knowledge and service sector.

This phenomenon is operating at various levels. For example, Vancouver's advantage over many other Canadian cities is its quality of life, which is largely attributable to the outstanding natural setting of the city and diversity of recreational opportunities that are found within close proximity. As Goldberg concludes "British Columbians rightly boast of our quality of life. In an economy built on human, not physical, capital, our ability to attract and retain first-rate people is a key to future prosperity."¹²²

In many cases, the changing face of the BC economy may appear deceptively undramatic. Unlike the old economy, where hundreds of jobs could be created or lost with the opening or closing of a single mill or factory, in the new economy, jobs tend to be created in a dispersed fashion. Rather than accomplished in a dramatic old-economy 'ribbon-cutting' to open a new plant, hundreds of small business adding a few employees here and there can generate thousands of new jobs, and establish a resilient and vibrant local economy without a single large employer moving into an area. The statistics speak to the fact that a small business revolution is already happening and is a major force in job creation in BC. Consider that:¹²³

- The number of small businesses in BC grew by an average of 17,500 each year between 1990 and 1997

¹²² Goldberg, M. September 1998. *The British Columbia Economy into the Millennium: Perspectives and Possibilities*. A Discussion Paper prepared for the Business Council of British Columbia. Faculty of Commerce and Business Administration, University of British Columbia. p. 19.

¹²³ Ministry of Small Business, Tourism, and Culture. 1999. *Small Business Profile '99*. Victoria, BC.

- 80,300 new jobs were created by small businesses in BC between 1994 and 1997 – more than 26,500 jobs per year
- 98 percent of all businesses in BC are small businesses. 82 percent are 'micro businesses', those with fewer than 5 employees
- In 1997, an estimated 858,000 British Columbians were employed by small business
- Service businesses accounted for 95 percent of new small businesses in BC between 1990 and 1997
- The greatest increase in small business jobs is occurring in the health services, tourism and business services sectors
- BC saw the highest rate of growth in small business (7%) between 1990 and 1997 of any province in Canada

5.2 Prospects for the New Economy

Given the foregoing, there is clearly a need to develop a whole new economic strategy for BC that will reduce our reliance on natural resource extraction and build on a new economy based on human capital deployed in advanced service and knowledge-based sectors. If we are to escape the 'commodity trap', British Columbians must move from being price-takers in commodity markets to price-setters in high-end niche markets in a diversity of goods and service sectors. Goldberg offers one vision of what this future might look like:

"The BC economy of the future will still have a strong (and likely stronger) resource sector, but one that is better differentiated, more productive and more competitive. The province will also enjoy the benefits of a broad array of new and emerging economic activities which will be built on human capital, not physical or natural capital. Tourism and knowledge-based industries will be the forest and mining sectors of tomorrow. Knowledge intensive services and knowledge-based

manufacturing will all have large and central roles to play in the BC economy of the next century."¹²⁴

Goldberg also notes:

"There is no reason why financial services such as investment management, securities brokerages and insurance cannot prosper outside the Lower Mainland where housing prices are lower, congestion is nil, and the quality of life is high. Virtually every interior community has an airport (or is within 30 minutes of one), and is an hour from YVR [Vancouver] and easy access to the entire world."¹²⁵

5.2.1 BC Value-Added Forestry: Doing More With Less

In his paper on the new economy prepared for the BC Business Council, Goldberg talks about a new value-added future for forestry. He says:

"We cannot take the future as a given by shoring up traditional sectors at the expense of new ones. Value-added discussions in BC focus on adding value to the production process by doing more downstream processing...[but] we need a totally different value-added concept: adding value to the customer through better quality, delivery certainty, branding, product warranties, etc."¹²⁶

In recent years, the value-added sector has become an increasingly significant component of the BC forest industry, accounting for about 13,000 direct jobs in 1996. This is an increase from 11,500 in 1991, and represents about 13 percent of direct forest sector employment.¹²⁷ A 1993 study estimated that there were approximately 565 value-added plants in BC, the majority of which had under 50 employees.¹²⁸ Most value-added

¹²⁴ Goldberg, M. September 1998. *The British Columbia Economy into the Millennium: Perspectives and Possibilities*. A Discussion Paper prepared for the Business Council of British Columbia. Faculty of Commerce and Business Administration, University of British Columbia. p. 18.

¹²⁵ *Ibid.*, p. 32.

¹²⁶ *Ibid.*, p. iv.

¹²⁷ Council of Forest Industries. *Forest Industry Fact Book 98* at <http://www.cofi.org/factbook98/three/3-10.htm>

¹²⁸ Forintek Canada Corp and Jim McWilliams. 1993. *Structure and Significance of the Value-added Wood Products Industry in BC*. Forestry Canada and BC Ministry of Forests. (FRDA II). p. 8.

manufacturing plants are located in the Vancouver and Kamloops regions, accounting for approximately 65 percent and 21 percent of plants, respectively.¹²⁹

The value-added sector accounted for about \$2 billion in sales in 1996 and is comprised of a diversity of small to medium- sized enterprises. The major value-added sectors by size are:

- Remanufactured Products (e.g. specialty and custom cut lumber, fencing, panelboard);
- Engineered Building Components (e.g. laminated beams, prefabricated buildings, log homes);
- Millwork (doors, windows, architectural woodwork, turned wood products);
- Cabinets;
- Furniture;
- Pallets and Containers; and,
- Other Wood Products (e.g. chopsticks, ladders, garden products).

Remanufactured Products is the dominant component of the value-added industry in BC, employing about 30 percent of the workforce and accounting for almost 50 percent of value-added sales. Remanufacturing plants and log home builders sell a substantial portion of their output offshore, with remanufacturing plants being the largest group exporter to the U.S. market.

The value-added forest sector is a critically important component of the new economy for BC and a potential source for new job creation. Jobs being created in the value-added forest sector have been offsetting the loss of jobs in harvesting and primary processing. A study conducted in August 1992 on the performance of the value-added sector under the Forest Resource Development Agreement (FRDA) also notes that the value-added sector performed better than the industry average during economic downturns. The same study indicates that wages in this sector were approximately \$35,000 per employee per year in 1991, which is 70% of the industry average of \$53,700. Jobs created in the value-added sector are all

¹²⁹ Ibid., p. 9.

net new jobs, since the sawmill must first process the timber to generate the lumber for the value-added plants.

A significant portion of BC's exported remanufactured product is custom cut lumber which is further processed into value-added products in other countries, chiefly the U.S.¹³⁰ Currently, the BC forest industry exports significant quantities of under-processed cants, flitches and large lumber pieces of high grades. Much more can be done to capture economic value and jobs in BC from these products. These exports represent a significant lost opportunity to create jobs in BC. To continue the current practice of exporting under-processed wood products makes neither economic nor environmental sense, since these exports represent a significant lost opportunity to create jobs in BC.

Constraints to the Forestry Value-added Sector

The BC forestry value-added sector faces chronic wood supply and quality constraints that hamper industry growth. Value-added manufacturers consistently express frustration with their inability to obtain a secure supply of wood in appropriate volumes and qualities to enable their value-added enterprise to thrive. This stems from a basic inability of the value-added sector to deal on an equal tenure footing with the major companies that produce lumber. As a 1993 study commissioned by the BC Legislature reported, nearly 90 percent of respondents to a value-added industry survey indicate that wood supply is a "major problem" with wood quality the second largest problem according to 80 percent of respondents.¹³¹ Notably, wood price was ranked as sixth on the list of constraints despite accounting for 60 percent of total operating costs. In other words, the value-added sector can afford to pay for the wood they need but have difficulty getting access to it.

These conclusions are corroborated by the BC Spaces tour of the province. For example, in 100 Mile House, the municipal council voiced strong concerns that the community's vibrant local log home industry was facing acute difficulties in accessing suitable logs, either through trades or sales. According to the mayor, the bottleneck seemed to be the Ministry of Forests' inability to facilitate the flow of suitable quality house logs.

¹³⁰ Birss, Helen. 1993. *Making Wood Work: Value-Added Policies and Procedures*. Northwest Policy Center, Pacific Northwest Economic Region.

¹³¹ Select Standing Committee on Forests, Energy, Mines and Petroleum Resources. June 3, 1993. *Lumber Remanufacturing in British Columbia*. Legislative Assembly of British Columbia, Victoria, BC. p. 11.

Similarly, in Golden, an innovative veneer plant has been established which demonstrates that markets exist for very high quality wood veneer products. This value-added venture is both economically and ecologically promising since it can achieve 5 to 10 times the jobs from a cubic metre of wood in comparison with conventional lumber mills. Yet, this plant is having difficulty accessing high quality logs on which the mills operation would be based. Similarly, operators in Northern BC indicated that they were unable to access suitable wood for guitar construction despite the fact that northern spruce in the Upper Fraser region ranks among the best in the world for guitars and can fetch a premium price. This lack of secure wood supply, along with consistent levels of quality, quantity and price, has also been cited as the cause of a sharp decline in smaller- scale BC furniture manufacturers over the past three decades.¹³²

Clearly, as these examples show, the lack of secure wood supply of appropriate quality is holding back the expansion and diversification of the value-added sector in BC. Therefore as the 1993 Select Standing Committee report to the legislature recommended, the provincial government needs to:

- Expand the opportunities which will enable the value-added sector to access timber supply through modifications to timber tenures;
- Facilitate financing for start-up and expansion of value-added businesses; and
- Promote innovation and excellence in product development and marketing.

¹³² See *Value Added Review*, an on-line journal on furniture design and sustainable wood supply in BC at <http://www.wooddesign.bc.ca/news9.htm>, Issue 7: Winter 1999.

6. RECOMMENDATIONS: BLUEPRINT FOR A NEW BRITISH COLUMBIA

The final section of this report presents recommendations that can assist British Columbia to move forward on a Jobs *and* Environment agenda. Rather than identifying a shopping list with a large number of specific recommendations in diverse sectors and policy areas, we have chosen instead to identify some broad strategic initiatives that the provincial government can undertake, both to reform job creation policy and protect the environment, and thus better prepare BC to enter the New Economy.

6.1 *Establish a BC Economic Leadership Council*

If BC is to successfully make the transition to the new, knowledge-based economy, the BC government should replicate the Oregon experience referred to in section 3.3. To do this, the British Columbia government should establish a British Columbia Economic Leadership Council with representation from key leaders in all sectors of BC society. Leadership of this council must be demonstrated from the very top of government, by the BC Premier – just as occurred in Oregon, where the Governor personally led the effort to remake that State under its *Oregon Shines* Strategic Plan. Accordingly, the Premier should be the one to take the lead in framing and communicating a new economic vision for British Columbia.

This BC Leadership Council should include key opinion leaders from business, labour, academia, social and environmental non-governmental organizations, First Nations, and local communities. The mandate of the Leadership Council should be to develop a visionary plan with practical measures to accelerate diversified new economy job creation while protecting the environmental and social amenities that British Columbians value so highly. Hence, the Leadership Council's job should be to articulate and inspire British Columbians with a new vision that can perhaps best be described as an entrepreneurial spirit that is also rooted in an environmental and social ethic.

The Leadership Council should prepare a White Paper entitled a 'Blueprint for the New Economy' which would serve as a public discussion document. This Blueprint should identify integrated new economy opportunities and

propose measures to enhance job creation and environmental protection across BC, as well as recommendations specific to key economic sectors. For example, there should be specific proposed actions in the areas of tax reform (particularly ecological tax shift measures) and to promote knowledge-based small businesses. Recommendations should strategically address the needs of specific sectors, notably the environmental industry, high technology, alternative energy, ecotourism, retirement services, value-added forestry, film and more. Wherever possible, the White Paper should focus on measures to enhance job creation in rural BC where job creation is lagging. The work of the Leadership Council and the 'Blueprint for the New Economy' must be about more than individual sectoral programs, however. Done properly, an action plan for the new economy should emerge, which while based on a series of sectoral initiatives should encompass a compelling vision for British Columbia in the 21st Century.

Once completed, the Leadership Council's White Paper should be the precursor for a province-wide discussion – undertaken through a series of Jobs and Environment town hall meetings – which should then culminate in a conference on the new British Columbia. This conference should include not only lead spokespeople from the various sectors of BC society, but involve key international opinion leaders as well, so as to lend a stature and global perspective to the provincial discussion. The outcome of this forum on the new economy should result in an Action Plan that can then be embraced and implemented by government and key stakeholders. To enable this, the Jobs and Environment Action Plan should be built upon specific measurables and a series of tasks which will enable all sectors of BC to take action as occurred in Oregon to make possible this province's transition to the new economy.

6.2 *Support Accelerated Regional Economic Transition*

The focus of new economy transition has tended to emphasize the urban portions of British Columbia. The challenge now is to bring diversification and economic transition opportunities to rural BC, particularly those communities with high resource dependency. After all, these are the towns most at risk and most in need of assistance. To a large extent, there are already two BC economies: a thriving urban economy centered in the Lower Mainland and southern Vancouver Island; and a stalling rural economy based on traditional resource extraction with dwindling resources and a reduced employment base. The challenge therefore is to ensure that

such a two-economy model is not perpetuated into the future such that some rural communities are left behind to stagnate while other communities make the transition to the new economy. Generally speaking, the northerly communities (e.g. north of Quesnel and northern Vancouver Island) face more challenges than their southern BC counterparts. Partly this is due to harsher climates, more remote locations and less developed social and cultural amenities. In these cases, the provincial government may need to offer extra strategic assistance to maximize the economic diversification opportunities available to these communities. Some tangible steps the provincial government could take to ease the transition include the following:

- *Provide economic transition planning for vulnerable communities*

The provincial government could provide assistance in undertaking economic transition planning, focusing on those communities with the greatest dependency on the extractive resource sector. This transition planning should outline steps that can be taken to identify, enhance and promote the environmental and social amenities within the community as these are foundations for attracting high technology workers and businesses, tourism operators, retirees and other 'foot-loose' workers of the new economy. Investment in public goods such as infrastructure, education, environmental protection, public safety, or even cultural life will likely do more to foster economic growth than subsidies for private industrial activity. The government could also:

- Identify specific opportunities to attract high technology firms, retirees, and service industries. Communities should take advantage of the tendencies of firms to cluster by considering 'eco-industrial parks' and by facilitating various forms of business combinations and interconnections;¹³³
- Include a communication strategy to reach target audiences with information about the amenities and infrastructure of communities that would be of benefit to knowledge-based businesses, retirees and also tourists;

¹³³ Coast Writers Research and Communications. 1998. *Environmental Quality and Regional Economic Development*. Prepared for Environment Canada, Environmental Conservation Branch. p. iii.

- Include investments in human resources and community infrastructure, such as counseling, retraining, additional education, small business technical support and business planning support, specifically targeted to new economy business opportunities; and,
- Establish a clearing-house for information on economic transition resources, opportunities, and success stories.

Community leaders indicate that there is need to access reliable data on the economic transition occurring within their communities. Currently, the manner in which many BC statistics are compiled, it is often difficult to see the contribution made to local communities by elements such as tourism, home-based businesses, telecommuting, and retirement services. Often municipalities do not know how to track this information and therefore are unaware of the contributions being made by these new sectors to the economy. The provincial government could assist community economic transition planning by providing reliable data on the 'new economy', perhaps through a web-site with regional economic information and analysis that could be accessed by community groups and planners.

For example, there is a lack of statistical data to enable easy tracking of the economic importance of tourism. Statistics Canada accounts track a variety of economic sectors, such as forestry, mining and financial services, but not tourism as there is no specific Statistics Canada tourism account. As a result, the contribution that tourism makes to the economy is difficult to determine and often understated. This is especially so in smaller communities. The provincial government can help to strengthen diversification into the tourism sector by helping to determine its regional size and significance, trends in the sector, and by making this information available to community economic development planners.

- *Develop economic transition 'pilot' projects in selected communities*

The provincial government should facilitate economic transition pilot projects in selected communities. These demonstration projects should involve community facilitation to enable local people to identify specific, local new economy opportunities. The province needs to support these

community self-planning exercises, by providing facilitation, logistical support and business development expertise. Such pilot projects would help to accelerate the process of economic diversification. By undertaking a few pilots in selected BC regions, the province could demonstrate that economic diversification is possible, thereby conveying 'success stories' to inspire other BC communities.

Considerable interest in the pilot project concept was expressed by communities during the BC Spaces' Jobs and Environment tour, in locations including Golden, Invermere, Salmon Arm, Vernon, and Williams Lake. Other communities such as Kelowna, Vernon, Kamloops and Nelson appear to be further along in their economic transition planning and the benefits of a demonstration project in these communities may be less pronounced and necessary.

6.3 Undertake Forestry Reform

Reform is needed in the forest sector to:

- promote increased investment in intensive management of the second-growth forests;
- expand the opportunities for the value-added sector to create more value and employment from the trees harvested;
- provide more opportunities for communities and individuals to participate in forest management in Crown land; and,
- increase the level of protection for BC's remaining old-growth forests and wilderness areas, which are critical to sustaining biodiversity and a wide range of non-timber values across the landscape.

In order to move forward on these items, the provincial government should take action in the following 3 key areas:

- *Reduce Annual Allowable Cut (AAC) to long-term sustainable levels.*

There is a pressing need to address long-term forest sustainability through the protection of a range of non-timber forest values, especially conservation of forest biodiversity. Many areas of the province continue to have AACs well in excess of the long term sustainable levels (LTHL). Therefore, these harvest levels need to be reduced in order to prevent

both the loss of biological diversity and to retain future options for communities. Areas of forestland with high non-timber values should be identified and managed with much higher emphasis on conservation values and tourism, rather than just timber production. For example, many areas of the province have been identified as Special Management Zones through various land use planning processes. A greater commitment is required from the government to manage these areas for the range of non-timber values identified in these areas, particularly tourism, and to develop and adopt environmentally-sensitive eco-forestry harvesting plans and methods.

- *Undertake tenure reform to provide incentives for forest companies and communities to undertake enhanced forest stewardship.*

This should include significant expansion of the Community Forest Pilot Project and the Woodlot Program, and conversion of volume-based forest licences to area-based licences that promote long term forest stewardship.

- *Promote an open competitive market for Crown timber through regional log markets.*

As noted earlier, without access to timber at consistent levels of quality, quantity, and price, value-added manufacturers struggle to remain viable, let alone expand and create new jobs. It has been estimated that if an additional one percent of BC's sawmill output were directed to the value-added sector, an additional 4,000 direct jobs and 20 to 200 new furniture manufacturing plants could be created.¹³⁴ Active regional log markets would also be beneficial to value-added manufacturers, as they would enable such operators to access the specialized grades and quantities of wood that they need. The government could help to establish this market by requiring that a certain amount of Crown timber must be made available for open bidding.

¹³⁴ *Value Added Review*. "The one percent solution." Issue 7: Winter 1998 at <http://www.wooddesign.bc.ca/news9.htm>

6.4 Support Adventure Travel and Ecotourism Development

Opportunities to expand the ecotourism sector are substantial given BC's wide range of potential product offerings and strong growth in demand. While ecotourism represents a vital component of the tourism industry, many issues must be addressed to ensure the environmental sustainability and competitiveness of this sector. The provincial government should take a pro-active role in assisting ecotourism operators to be more effective in developing and marketing their products, and creating tourism jobs for British Columbians. Specific areas where this sector would benefit from assistance include the following:¹³⁵

- *Develop new products.*

There are opportunities to expand the range and quality of adventure tourism/ecotourism products in BC. These include:

- identifying unique and rare natural environments, flora, and fauna and developing appropriate ecotourism products focused on these;
 - upgrading infrastructure (e.g. expand low impact accommodations suitable for soft adventure experiences such as lodges and cabins); and,
 - upgrading of interpretation/hospitality services (e.g. development of interpreter/guide training programs, hospitality training for adventure operators, management training programs, etc.).
- *Strengthen and improve packaging and marketing of products.*

The success of the 'Super, Natural BC' advertising campaign is testimony to the effectiveness of brand imaging that builds on BC's unique comparative advantage of superb environmental quality. There is a need to build on this image and develop more targeted marketing opportunities for ecotourism. Individual operators need to be more effective in tapping into the travel trade marketing/distribution infrastructure by doing more packaging with tour operators, inbound

¹³⁵ Some of these strategic priorities were identified in a national survey of the sector by the Canadian Tourism Commission prepared by the Randolph Group. January 1997. *Adventure Travel and Ecotourism in Canada: Strategic Framework for Development*.

wholesalers, and target market tour wholesalers. For example, pre- and post-event ecotourism packages could be developed and marketed to the substantial and growing conference, convention, and cruise ship traffic that passes through Vancouver. In this way, Vancouver events could be used to further tourism development in the regions.

- *Enhance cooperation, collaboration, and communication among adventure travel/ecotourism operators.*

The ecotourism sector is fragmented and insufficiently represented. The development of an adventure/ecotourism association, either within the Council of Tourism Associations (COTA) or by re-instituting the Wilderness Tourism Council, would help to organize and strengthen this sector through joint development and marketing of tourism products. An association is also needed to advocate for the interests of the industry in land use planning processes. Similarly, communities that hope to diversify into tourism have got to become more sophisticated in recognizing the need to protect crucial views, rivers, streams, fisheries, old-growth forests and wilderness areas. Tourism is a large part of the economic future of BC, but its future can only be assured if the environmental values on which this sector depends are conserved.

- *Complete the protected areas system*

A main challenge for the ecotourism sector is to prevent the degradation or destruction of the natural resource values upon which it depends, due to inappropriate developments by other sectors, notably mining and forestry. A 1997 analysis of this sector by the Canadian Tourism Commission concluded, "resource sustainability is a key issue which is of paramount importance in developing new products or upgrading/expanding existing products."¹³⁶ The provincial government can play a pivotal role in ensuring the sustainability of the tourism industry by completing the BC protected areas system to ensure that representative examples of all of BC's ecosystems and habitats are protected, including a range of large wilderness parks and smaller,

¹³⁶ Randolph Group. January 1997. *Adventure Travel and Ecotourism in Canada: Strategic Framework for Development*. p. 8.

special feature parks. Since the protected areas system is vital to the future of the ecotourism industry, it must be completed promptly.

- *Ensure tourism resource values are identified and protected in land use planning*

The provincial government should work with the tourism sector to identify important landscape and site-specific tourism values and emphasize the importance of visual quality assessment and protection as part of strategic and operational planning in BC. Many viewsapes are vitally important to the enjoyment of a tourism experience and are not adequately protected from unsightly urban, logging, mining and road development. Areas with high tourism values outside of protected areas should be managed with tourism as a priority, for example, through special management zone designation under a provincial land use plan, or through a high level of visual quality retention in operational forest plans. As well, road layout and development should be done to minimize impacts on adventure tourism/ecotourism values.

- *Ensure that ecotourism/adventure travel occur in an environmentally sensitive manner.*

BC tourism operators need to agree on ecologically sustainable field practices for their various types of ecotourism activities and adopt 'environmental codes of conduct' appropriate to the ecological environments of the areas in which they operate. High standards of environmental protection are needed to protect the resource, and also to ensure that visitors enjoy a high quality experience.

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